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ABSTRACT

This report analyzes the relationship between educational policymaking and educational practice in schools and classrooms by drawing lessons from recent attempts to reform schools with policy. Educational reform operates on the following loosely connected levels: (1) policy; (2) administration; and (3) practice. Policy can set the conditions for effective administration and practice, but it cannot predetermine how those decisions will be made: in order for reforms to be large-scale or long-term, there must be dialogue among policy, administration, and practice. Federal reform policies of the 1950s and 1960s are analyzed. The mistakes of past policymakers can be remedied by strengthening the connection between policymakers and practitioners. To be effective, reform policies must do the following: (1) close the gap between policy and practice, in part by charging practitioners with the development of solutions rather than mandating requirements that have little or no basis in practice; (2) accommodate variability by creating policies that lead to better understanding of effective practice rather than discouraging and penalizing it; (3) learn that rules only set the standards of fairness and do not prescribe solutions to practical problems; and (4) create organizations that foster and encourage reforms of practice. (BJV)

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Policy, Practice, and the Reform of American Education

Richard F. Elmore, Milbrey Wallin McLaughlin

February 1988

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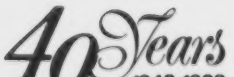

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PREFACE

This report is an analysis of the relationship between educational policymaking and educational practice in schools and classrooms. It is designed to contribute to the current debate on educational reform, not by analyzing the effects of the latest generation of reforms, but by drawing lessons from recent attempts to reform schools with policy. Its central message is that the mistakes of past policymaking can be remedied by strengthening the connection between policymakers and practitioners.

The report should be of interest to those who make and influence policy as well as those who tend to the daily tasks of schools. State legislators, legislative staff, state and local board members, local administrators, and teachers should find support in this analysis for a common view of their work.

The authors wish to thank Linda Darling-Hammond, Thomas Glennan, and Paul Hill of The RAND Corporation for their thoughtful comments and support of the project, although the views expressed are those of the authors alone.

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SUMMARY

The history of American education is, in large part, the history of recurring cycles of reform. There is considerable disagreement over the meaning and effects of these cycles. Reform has historically had little effect on teaching and learning in classrooms. In this pessimistic sense, educational reform is "steady work." That is, measured by substantial changes in what is taught and how, the rewards are puny; but the work is steady, because of the seemingly limitless supply of new ideas for how schools should be changed and no shortage of political and social pressure to force those ideas onto the political agenda. Reforms that deal with the fundamental stuff of education—teaching and learning—seem to have weak, transitory, and ephemeral effects; while those that expand, solidify, and entrench school bureaucracy seem to have strong, enduring, and concrete effects.

Reform of the basic conditions of teaching and learning in schools requires "steady work" of a different sort than has characterized educational reforms of the past. These reforms must, in some sense, originate in the practice of teaching, rather than in expert advice and external standards.

Educational reform operates on three loosely connected levels: policy, administration, and practice. Each level has its own rewards and incentives, its own special set of problems, and its own view of how the educational system works. Policy can *set the conditions* for effective administration and practice, but it can't predetermine how those decisions will be made. Administrative decisions can reflect policy more or less accurately and can set the conditions for effective practice, but it can't control how teachers will act in the classroom at a given point. Practice can reflect knowledge of more effective performance, but this knowledge isn't always consistent with policy and administrative decisions.

Reform can originate in any of three ways: (1) changes in professionals' view of effective practice, (2) changes in administrators' perceptions of how to manage competing demands and how to translate these demands into structure and process, and (3) changes in policymakers' views of what citizens demand that result in authoritative decisions. There is no necessary logical order among these sources of reform.

Education works through the interdependence of policy, administration, and practice. Conflicts among these spheres result from differences in rewards, incentives, and conditions of successful performance

among elected officials, administrators, and practitioners. Because of the interdependence, conflict, and slack among spheres, reforms cannot be expected to have large-scale or long-term effects unless they involve substantial dialogue among policy, administration, and practice. Changes in education, like changes in language, are composites of practice, structure, and rules.

Analysis of federal education reform policies in the 1950s and 1960s reveals certain general themes. First, federal policy has extended its reach to all activities of schooling. Developmental efforts have reached directly into the classroom by attempting to change conventional methods of teaching. Redistributive efforts have affected the allocation of resources between and among states and school districts. Regulatory efforts have affected the internal structure of schools and the classroom practice of teachers.

Second, cutting across virtually all federal reform policies is a tendency to substitute external authority—social science methods, university experts, regulatory requirements, and legal principles—for the authority and expertise of educational practitioners. Federal policy has communicated, at worst, a fundamental hostility, and at best, an indifference to the authority and expertise of educational practice.

Third, variability is the rule and uniformity is the exception in the relationship among policy, administration, and practice. Reforms succeed to the degree that they adapt to and capitalize upon variability.

Fourth, and closely related, adaptation is not simply a matter of policymakers acquiescing to local and regional differences in tastes and competencies, it is, more fundamentally, active problem-solving.

Fifth, lags in implementation and performance are a central fact of reform. Finally, there is abundant evidence that the time it takes for reforms to mature into changes in resource allocation, organization, and practice is substantially longer than the electoral cycles that determine changes in policy.

The lessons of federal experience with reform all seem to lead to the same place: the school and the classroom. The steady work of educational reform, in other words, must be grounded in an understanding of how teachers learn to teach, how school organization affects practice, and how these factors affect childrens' performance.

At the school and classroom levels, variability is not only inevitable in the specifics of classroom practice, it is an important ingredient of effective performance. This variability, however, conceals certain stable and irreducible aspects of teaching. Reform policies cannot realistically aspire to sweeping or fundamental change in classroom practice without considerably altering the conditions of teachers' work. Among these conditions are willingness to respond to new demands,

abilities to perform competently, and capacity to respond to competing responsibilities. These conditions are complemented by administrators' ability to interpret and translate constituency concerns, provide support for the development of new practice, and buffer teachers from multiple and confusing signals.

At the school and classroom level, variability in response to policies presents far more than a policy problem. It is an opportunity for policymakers to learn about effective ways to influence practice. Policies that aim to reduce variability by reducing teacher discretion not only preclude learning from situational adaptation to policy goals, they also can impede effective teaching.

Current reforms do not, for the most part, take account of these lessons from past reforms. To be effective, current reforms must (1) close the gap between policy and practice, in part by charging practitioners with the development of solutions, rather than mandating requirements that have little or no basis in practice; (2) accommodate variability, by building policies that lead to better understanding of effective practice, rather than discouraging and penalizing it; (3) learn that rules only set standards of fairness and don't prescribe solutions to practical problems; and (4) create organizations that foster and encourage reforms of practice.

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I. REFORM REDUX

> Once in Chelm, the mythical village of the East European Jews, a man was appointed to sit at the village gate and wait for the coming of the Messiah. He complained to the village elders that his pay was too low. "You are right," they said to him, "the pay is low. But consider: the work is steady."[1]

The history of American education is, in large part, the history of reform, or rather of recurring cycles of reform. From the origins of publicly funded education in late 17th century colonial America; through the growth of the common school in the late 18th and early 19th centuries; to the expansion and diversification of secondary education and the progressive reforms of curriculum and governance in the late 19th and early 20th centuries; to the Sputnik-era reforms of science, mathematics, and foreign language curricula in the 1950s; to the growth of the federal presence in civil rights, compensatory, and equity programs of the 1960s; up to the present reforms focused on excellence, standards, and economic productivity, each period of reform had a distinctive theme, and each was fueled by an increasingly complex coalition of social, economic, and political interests, and each posed a new set of problems for the next generation of reformers.[2]

Historians of education offer a variety of explanations for these recurring cycles of reform. Early 20th century historians saw in these reforms a steady growth and extension of schooling as the realization of democracy, progress, and humanitarianism (e.g., Cubberly 1934). More recently, this benign interpretation has been displaced by more critical ones. Carl Kaestle, for example, sees the growth of the common school in the late 18th and early 19th century as the result of the gradual formation of a Protestant, capitalist majority against an unorganized and disparate collection of dissenters, radicals, and political and religious minorities (Kaestle, 1983). Michael Katz sees the development of secondary education in the mid 19th century as evidence of capitalist interests asserting control over the working class, and 20th century reforms as a largely classist and racist society using the rhetoric of equality and progress to justify its own interests (Katz,

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[1]From Irving Howe, *Steady Work: Essays in the Politics of Democratic Radicalism, 1953-1966*, Harcourt Brace, New York, 1966.

[2]See, for example, Cremin, 1961 and 1970; Kaestle and Smith, 1984; Kantor, 1982; Tyack, 1974; Tyack and Hansot, 1982; Welch, 1979.

1968, 1975). David Tyack sees the "administrative progressive" reforms of the late 19th and early 20th centuries as the use of scientific rhetoric, professionalism, and bureaucratic centralization to solidify the control of "an interlocking directorate of urban elites" over public education (Tyack, 1974). Diane Ravitch sees the late 20th century reforms as a series of clumsy and ill-focused, if well-intentioned, attempts by various political interests to shape schools according to their visions, all of which failed at the central task of increasing student learning (Ravitch, 1983). These critics, starting from diverse points of departure, share a common skepticism about the value of the institutional residue of successive periods of reform.

Running parallel to this critical historical perspective on reform is an equally critical social science literature, tracing the effects of various reforms of educational practice in schools. Cuban, for example, found that so-called "child-centered" instructional reforms of progressive educators, at the height of their influence, permeated a substantial proportion of classrooms, perhaps a quarter, for a short period of time, but failed to have a lasting effect on the standard teacher-centered modes of practice (Cuban, 1984, p. 254).

Studies of new science and social studies curricula developed with federal government support in the 1950s and 1960s found that although many secondary teachers received training in the new curricula, few changed classroom practice as a result of exposure to the new curricula. The most lasting effect of the curricula appears, ironically, to have been on the content of the standard textbooks developers sought to displace (e.g., Welch, 1979). Popkewitz, Tabachnick, and Wehlage (1982) found that even in schools implementing Individually Guided Education, the reform did little to change patterns of work, conceptions of knowledge, and occupational norms. Results like these, played out across many cases, point to a weak understanding of how externally initiated reforms affect classroom practice.

These studies of specific reforms complement a recent critical literature on the American high school that paints a picture of schools in which only the very talented or the very needy receive individual attention, in which low academic expectations growing out of implicit "treaties" or "bargains" between students and teachers are the norm, and in which teaching is generally characterized by "flat" and uninteresting content delivered by unengaged teachers whose working conditions discourage a higher level of involvement in their work (Boyer, 1983; Cusick et al., 1986; Goodlad, 1984; Powell, Farrar, and Cohen, 1985; Sizer, 1984; cf. Lightfoot, 1983). Yet these schools—their curricula, their organizational structure, the skills and knowledge of their faculties, and the expectations under which they operate—are to a considerable degree the creatures of earlier reforms.

Such evidence leads to the conclusion that educational reform has historically had little effect on teaching and learning in classrooms. In this pessimistic sense, educational reform is "steady work." That is, the rewards are puny, measured by substantial changes in what is taught and how; but the work is steady, because there is a limitless supply of new ideas for how schools should be changed and no shortage of political and social pressure to force those ideas onto the political agenda.

To say that educational reform has had little effect on teaching and learning in schools, however, is not to say that reform has had no effects. Schools, for example, have shown the capacity to change dramatically on some dimensions in response to some external challenges. Between 1840 and 1900, for example, public school enrollment trebled, public expenditures on education increased thirty-fold in real dollars, and the public share of total expenditures on education increased from less than one-half to more than three-quarters (Fishlow, 1966, pp. 420, 423; cf. Meyer et al., 1979). Between 1900 and 1940, high school enrollments increased thirteen-fold, and the proportion of youth of high school age enrolled in public schools increased from under 10 percent to more than two-thirds (Powell, Farrar, and Cohen, 1985, pp. 234). In both instances, these mammoth changes in participation were accompanied by the creation of whole new institutional structures. In the earlier period, public schooling moved from a structure based on local voluntarism and philanthropy, through an intermediate stage of neighborhood decentralization, to its present locally centralized, bureaucratic form (Katz, 1971; Tyack, 1974). The latter period saw the development of the modern secondary school, with a curriculum differentiated into academic and vocational tracks (Kantor, 1982). But these large-scale institutional changes did little to address the question of what would happen to students when they arrived in schools and classrooms.

These institution-building periods of educational reform have been interpreted as responses to society's need to accommodate large numbers of youth whose economic productivity was declining in an increasingly industrialized society and to establish a credentialling system to ration access to status in society. Educational bureaucracies "emerge as personnel-certifying agencies in modern societies. They use standardized types of curricular topics and teachers to produce standardized types of graduates, who are then allocated to places in the economic and stratification system." They engage in "ritual classification," rather than "education" or "training" in the strict sense of that term. Therefore, *what* is taught, and *how* it is taught, are of little significance to society at large, and are thus left "uncontrolled and

uninspected" (Meyer and Rowan, 1980, pp. 79–80). In other words, institution-building in public education had little to do with teaching and learning, and much to do with legitimating inequality. More to the point, educational reform can occur on a massive scale without substantial effects on such fundamental aspects of schooling as conceptions of knowledge, teaching, and learning.

This, then, is the central dilemma of educational reform: Reforms that deal with the fundamental stuff of education—teaching and learning—seem to have weak, transitory, and ephemeral effects; while those that expand, solidify, and entrench school bureaucracy seem to have strong, enduring, and concrete effects. The promise of educational reform as a means of improving teaching and learning has yet to be realized.

As we write, the country is embarked on another period of ambitious reform, this time centered at the state and local level, emphasizing improvement of core academic content, higher student academic standards, and greater scrutiny of teacher performance. Whether these reforms, or succeeding ones, actually result in improved teaching and learning depends on whether policymakers, administrators, and practitioners are willing to address an array of questions that have not yet been put explicitly on the policy agenda—questions having to do with the locus of authority, knowledge, and responsibility for teaching and learning in schools.

In brief, our argument is that reform of the basic conditions of teaching and learning in schools requires "steady work" of a different sort than has characterized educational reforms of the past. In some sense, these reforms must originate in the practice of teaching rather than in expert advice and external standards as have past reforms. In Sec. II, we examine the formal relationship among policy, administration, and practice, specifying differences in perspective and incentives across "levels of the game." In Sec. III, we examine the history of recent attempts to initiate reform using an array of policy instruments. In Sec. IV, we turn the system on its head and examine conditions of successful reform at the school and district level. And in Sec. V, we describe an agenda of questions for present and future reformers.

Educational reform is steady work in another, more positive, sense. A society that can produce such a rich and variegated collection of new ideas for teaching and learning should be able to produce schooling.

II. POLICY AND THE REFORM OF PRACTICE

Educational reform operates on three loosely connected levels: policy, administration, and practice. Each level has its own rewards and incentives, its own special set of problems, and its own view of how the educational system works. Policy consists of authoritative decisions on the purposes of education, on the responsibilities of individuals and institutions, on the money required to run the system, and on the rules required to make it operate effectively and fairly. The U.S. Congress makes policy when it requires the Secretary of Education to administer a program of a certain kind with a certain level of funding. State legislatures and state boards of education make policy when they alter the financing systems of public education, define the basic educational program that will be offered by schools, and set teacher certification standards. Local boards make policy when they hire and fire superintendents, approve local budgets, close schools, and set staffing levels. One survives and performs as a policymaker based on one's ability to shape the demands of competing constituencies into an agenda that gets one credit, visibility, and reelection. In this sense, the rewards and incentives for engaging in policymaking are mainly political, in the positive sense of that term. Public control of education means political control. The educational system works by responding to public demands filtered through elected officials. Successful performance, however else it might be defined in managerial or professional terms, is ultimately a matter of electoral politics.

Educational practice consists of the fine-grained instructional decisions necessary to teach the content, manage a classroom, diagnose and treat individual learning problems, and evaluate one's own performance and the performance of one's students. The world of educational practice is mainly the world of the classroom teacher. The rewards and incentives for engaging in educational practice are largely professional and bureaucratic. One survives and performs as a classroom teacher by having strong beliefs about the importance of the task, by developing knowledge of content and process, by developing strong interpersonal skills, and by learning how to maintain one's position in an organization. The professional existence of a classroom teacher is necessarily isolated. The demands of the job require sustained interaction with students and only episodic interaction with other adults—teachers, administrators, or parents. Successful performance, from the teacher's

point of view, is likely to be defined in very particular ways: covering a certain amount of material, maintaining order in the classroom, bringing the class as a whole to a certain level of mastery, and getting a specific student over a specific hurdle.

Because of the inherent uncertainty and variety of individual students' responses to the same material, successful teaching depends heavily on spontaneity and improvisation. Certain skills of classroom management can be programmed and taught to aspiring teachers, but other important skills can be learned only through imitation or trial and error. This particularlistic view of performance is not a symptom of teachers' failure to understand their relationship to the larger bureaucratic and political system; it is a prerequisite of successful performance. At the level of the individual teacher, teaching does not consist of directly translating society's expectations into students' learning. It consists, rather, of deciding what material to cover, in what way, with what consequences for individual students. It consists of managing scarce time, of rationing time among students with equally legitimate but very different needs, and of limiting the competing demands that administrators make on that time. It consists, above all, of commitment, manifested in persistence with unyielding students, strong beliefs about what works and what doesn't work in the classroom, and a long-term engagement in the development of professional competence.

Between teachers and policymakers lies a vast, complex, oftentimes inscrutable network of administrators: In medium-to-large local school districts, school principals and vice principals, curriculum specialists, evaluators, business managers, assistant superintendents, regional administrators, and superintendents handle general administration. If the district has a portion of its budget in conditional grants from the state or federal level, it will probably also have a grants coordinator, project directors, and special staff for such activities as school improvement, bilingual education, gifted education, and education for the handicapped. At the state level, administration of state-mandated functions is typically handled by specialists in teacher certification, finance, testing, evaluation, curriculum, and the like, who report to assistant superintendents with broad functional responsibilities and to a chief state school officer. Since state education agencies draw from 40 to 80 percent of their administrative budgets from federal grants, they also have specialists who assume state-level administrative responsibility for federal programs—disadvantaged, migrant, bilingual, handicapped, etc.

For these administrators, the incentives and rewards are partly professional, partly bureaucratic, and partly political, in proportions that

vary widely from job to job. The feature that distinguishes administrators from policymakers and teachers is their preoccupation with the maintenance and development of the organization. One survives and performs as an educational administrator by learning how to juggle the competing demands of politics, organization, and practice. At the bare minimum, administration consists of assuring that schedules are met, that paper flows in the right direction at the right time, that expenditures reconcile with budgets, and that new demands from policymakers or higher-level administrators mesh with existing activities in one's sphere of responsibility. At the outer margins, administration consists of advising and influencing elected officials, creating new visions of where the organization should be going, motivating people to share those visions, and negotiating complex agreements among people with conflicting views of education and conflicting interests in the outcome of decisions. Successful performance, from an administrator's point of view, means turning conflicting demands into concrete organizational fixes: budgets, expenditures, staff responsibilities, supervisory roles, etc. Administrators are paid to manage a specific piece of a complex system—a school, a project, a district, a grant program, or a support function. In general, people tend to stake their performance on things they can influence directly, rather than on things over which they exercise little control. It should come as no surprise, then, that administrators tend to identify successful performance with the health of their piece of the system, rather than with the performance of individual students or the performance of schools.

Because educational practice at the classroom level is so particularistic, administrators cannot easily connect their actions to the actions of teachers, hence to the learning of students. "Administrative leverage over education is relatively small and distributed widely through a large number of only loosely coordinated administrative positions" (March, 1977, p. 21). School systems respond to external pressure for change, not by highly visible, well-specified, sequential actions, but by subtle shifts over time. "Diffuse systems change generally as a consequence of the spread or contagion of knowledge and beliefs, or of broad systems of incentives, much the way fashions in clothing spread through a population of loosely connected customers" (ibid.). Just as the particularistic character of teaching is an adaptation to the diversity of students and the uncertainty of individual responses to learning, so too is the loosely structured character of educational administration an adaptation to the particularistic character of practice.

Conflicts among policy, administration, and practice are endemic to educational reform. Electoral politics capture broad, systemic complaints about the performance of education and translate them into

policies. When public attention shifts to other political issues, the political credit that accrues to educational reform diminishes and the urge to reform trails off, leaving in its wake an accumulation of policies that engage the expectations of elected officials at a given point. These policies are played out in the administrative structures of schools, school systems, and educational agencies at the local, state, and federal levels. When the next shift in policy occurs, the "problems" that reforms are designed to solve are not just problems with the performance of the educational system, but also those resulting from the incompatibility of earlier policies with the current reforms. With each successive wave of reform, then, the problems of framing and implementing policies become more complex.

The use of policy as an instrument of reform exacerbates differences among policymakers, administrators, and practitioners. For an elected official, reform means identifying the problems the public has with education, distilling them into a politically feasible set of remedies, and constructing the coalition necessary to turn remedies into policies. The remedies that elected officials propose are necessarily abstract, because they must be appropriate for the *whole* country, the *whole* state, or the *whole* district. For the administrator, reform means rationalizing the effect of new policies on an existing structure. Administrators make decisions that extend general policies to *particular* settings or *particular* agencies with particular people doing *particular* things. Even when policy is clear about what it expects of individuals, and frequently it cannot be, its effect is quite different from one setting to another.

For teachers, reform means changing established patterns of practice, translating broad and often unclear administrative directives into concrete decisions about how to use time and what to do with this or that student. Teachers understandably see reform policies, not from the point of view of global objectives, or even system-wide or school-wide objectives, but from the point of view of getting through the material, adjusting their routines to new supervisors and new roles, meeting new reporting requirements, implementing new testing procedures, and communicating new expectations to students. Ironically, if teachers have thought about their own view of practice and if they have strong professional convictions about how to teach effectively, they are more likely to see conflicts between reform policies and their own work. Teachers are often the last to be heard from on the effects of reform policies and the first to be criticized when reforms fail.

What the committed teacher regards as good practice may cost too much, incite parental objections, or require changes in long-standing administrative structures. What the administrator regards as

reasonable changes in rules and structures may make demands on classroom practice that teachers regard as impractical or may run afoul of the school board's or the state legislature's mandates. What the school board member or state legislator regards as a reasonable requirement may make no sense whatever at the classroom level or at the district level.

Some of the "unresponsiveness" that elected officials observe in teachers and administrators, in other words, stems from factors that are preconditions for effective professional practice—strong convictions, commitment to the task, and knowledge of specifics. Many of the conflicts that arise among elected policymakers, administrators, and teachers grow out of predictable differences in roles and incentives, not out of incompetence or political opposition. Reforms can't be expected to work well if they don't knit these roles and incentives together in an intelligible way.

Differences in roles and incentives are only one part of the problem of reform. Another is the slack among policy, administration, and practice. Policies that mandate broad-scale changes in curriculum content, rules, and structures take time to implement. Some are never fully implemented. Some are implemented differently in different settings. Administrative decisions, reflecting complex tradeoffs among competing demands from the public, policymakers, and practitioners, are often not fully consistent with policies mandated by schools and legislatures. School-level and classroom-level decisions about what to teach and how to teach it are often based more on the requirements of particular children, with particular needs, in particular settings than they are on the broader framework set by policy and administrative decisions.

The slack among policy, administrative decisions, and practice is not just an undesirable side-effect of bureaucracy, it is a practical necessity. Policymakers, for the most part, don't know how to teach reading, for example. But they do know how to turn diffuse public demands into authoritative requirements that school systems should pay more attention to how they teach reading. Administrators, even if they do know how to teach reading, can't control the way teachers do it on a minute-by-minute basis; so administrators have to be satisfied with setting structures and performance expectations that communicate the importance of reading. Teachers and their allies in curriculum development *should* know how to teach reading. If they are competent practitioners, they will respond to a charge to improve reading instruction by learning new, more effective ways to do it. Teachers do not necessarily know what the best policy is to promote the teaching of reading, nor are they necessarily the best judges of how to organize and finance the teaching of reading on a district, state, or national level.

Slack is necessary in these relationships, then, because each level of the system depends on the others for knowledge and skill that it doesn't have. Slack is a manifestation of the interdependence among policy, administration, and practice. It takes time and adaptive behavior to work out the consequences of reform. Policy can *set the conditions* for effective administration and practice, but it can't predetermine how those decisions will be made. Administrative decisions can reflect policy more or less accurately and can set the conditions for effective practice, but it can't control how teachers will act in the classroom at a given point in time. Practice can change to reflect knowledge of more effective performance, but this knowledge isn't always consistent with policy and administrative decisions.

Reform can originate in any of three ways: (1) changes in professionals' views of effective practice, (2) changes in administrators' perceptions of how to manage competing demands and how to translate these demands into structure and process, and (3) changes in elected officials' views of what citizens demand that result in authoritative decisions. Notice that there is no necessary logical order among these sources of reform. Professionals can initiate reform by changing their view of effective practice, leaving to others the task of translating those changes in practice into changes in administrative structure and policy. This is what happened with the growth of the common school and the spread of progressive education. Alternatively, administrators can initiate reforms in structure and process, leaving to others the task of translating those changes into changes in practice and policy. This is what happens whenever a new superintendent enters a local school system with a new set of priorities. Or elected officials can initiate reform by changing policy, leaving administrators and practitioners to work out its consequences. This has been the story of the most visible reforms since 1958. Only since the early 1960s has it become conventional wisdom to think of reforms as beginning with changes in policy and working their way through administration and practice. In fact, that is only one model of how reforms come about, and a fairly limited one at that, in the sense that it discounts the role of administration and practice in shaping reform and overstates the role of policy.

The shift toward using policy as an implement of reform is partly a consequence of a growing distrust of professional judgment and a desire to assert (or reassert) political control of the schools. This shift should not blind us to the fact that changes in policy are only one piece of a much larger set of relationships underlying reform. Educational reform might be greatly simplified if it could be made entirely a matter of professional judgment, administrative control, or policymaking. But that option does not exist. Reforms, if they are to be anything other than

cosmetic, are eventually composites of policy, administration, and practice. If the channels aren't open among the actors at each level, policy, administration, and practice will never connect in a useful way.

A brief example illustrates what we mean. Take a given reform at a given point—say, the teaching of high school biology in 1962. What we typically find is a pattern something like the following: Leading experts and policymakers have observed the deplorable state of high school science instruction. A national initiative has resulted in earmarked funding, curriculum development, teacher workshops, and broad-scale dissemination of new ways of teaching biology. A substantial minority of biology teachers have enthusiastically adopted the current view of "best practice," but the majority of teachers are still doing it the "old way." A considerable minority of school systems have successfully adapted to the principles of best practice by setting up district-wide programs, but the majority of school systems have not made a commitment to the change. Over time, some of these latter districts will make piecemeal adjustments to the new definition of best practice, some won't. At the state and federal level, advocates of reform alternately praise the fast adopters, chide the laggards, criticize state and local administrators for their unresponsiveness, and condemn the majority of high school biology teachers as poorly trained and hopelessly retrograde. At the same time opponents of reform express concern over the erosion of "local control" brought about by unwarranted intrusions of federal and state bureaucrats into the curriculum decisions of local administrators and teachers.

If we look at the same system twenty years later—say, 1982—we typically observe that the original reform has long since ceased to be an identifiable entity; some of its features have become part of the conventional wisdom of the field, others have not; but whatever separate identity it had as a "reform" is usually not discernible in teaching or in administrative structure. The sharp distinction between "best practice" and the "old way" is no longer obvious; therefore, it's difficult to tell who the "innovative" teachers and districts are. At about this time in the scenario, policymakers rediscover the original problem. A distressingly low number of high school graduates, it seems, are taking biology, or any other science for that matter. This fact is observed in the reports of expert commissions and on the editorial pages of newspapers. Typically, the original reform is branded a "failure," because, after all, we can no longer see its effects on administration and practice. A new nationwide effort is launched to increase science instruction for young people. The new effort has many of the attributes of the old one, dressed up to look like they're new—national commissions, earmarked financial support, crash programs to develop new curricula,

ambitious teacher training workshops, or "lighthouse" districts who are early adopters. If we were bettors, and if the only information we had on which to base a prediction was the fate of earlier reform, we wouldn't give the new reform any higher probability of "success" than the old reform.

What's interesting about this scenario is that you could substitute any of the major reforms of the past century for high school biology in this description and have an essentially accurate picture. The growth of the common school, progressive education, science education, environmental education, compensatory education, school desegregation, and, one suspects, the current groundswell for excellence and quality all have predictable patterns: First comes an upsurge of public concern, then a broad-scale dissemination of "best practice," abetted by policy, professional networks, or both; paragons of "best practice" are given high visibility, while pockets of resistance are criticized but seldom successfully brought into the mainstream; the pressure for reform—political or professional—trails off, leaving traces of best practice in textbooks, teacher education, local structure, and state law; finally, an upsurge of public concern starts the process over again.

What we're witnessing in these instances is not so much the failure of reform, nor is it necessarily, as critics often imply, some fundamental defect in the educational system as a whole. The "failure," if there is one, lies in the unwillingness of reform advocates to acknowledge the conflicts and dependencies between and among policy, administration, and practice. Within these broad patterns of reform, quiescence, and re-reform, an enormously complex sifting and sorting process occurs. Some of the original notions of "best practice" behind a reform turn out not to make sense in organizational or pedagogical terms. Some of those that do make sense become standard practice and are no longer thought of as reforms. Policy may or may not adjust to shifts in administration and practice. Sometimes policy contains requirements that have never been implemented or have been tried and rejected as infeasible. Sometimes it contains requirements that so closely reflect standard practice they appear to be superfluous, and in many cases are. Sometimes policy encourages effective changes in administration and practice. Sometimes it constrains the development of more effective administration and practice.

The sifting and sorting process is also influenced by factors external to reforms. The political culture of some settings makes them immune to certain reforms and highly susceptible to others. The South resisted the growth of the common school, for example, long after the Northeast, Midwest, and West embraced it; large school systems adapted readily to progressive education, while many small systems

found it eminently resistable. Shifts in demography and national politics sometimes reinforce, sometimes undermine, reform. The postwar baby boom created a bulge in the population that dramatically increased the political rewards for initiating educational reform, increased the fiscal resources available to finance it, and created a demand for new educational personnel to administer and practice it. The present push for reform occurs during a period of declining or stable birthrates, a political climate in which the majority of the voting public are likely not to have school-aged children, and an economic environment in which the demand for new personnel stems mainly from the replacement of retirees from the previous boom, not from a major growth in enrollment and capacity.

In other words, what we call "education reform" is, in fact, a single but significant part of a much larger communication among education policy, administration, and practice that must occur for the educational system to function effectively. But the rhetoric of reform is often at odds with the reality. The rhetoric describes "reforms" as discrete changes in policy, administration, and practice that are either "there" or "not there." If reform is successful, the changes are there; if reform is unsuccessful, the changes are not there.

In reality, reform is more like the process of introducing changes into a language. Language is independent of our attempts to change it. Some attempts to change usage "take," others don't. Official language (read policy) is often quite different from actual usage (read administration and practice). Actual usage varies considerably from one area to another, often to the point where people from different regions have difficulties understanding one another. Over time, though, languages change dramatically, as we see, for example, when we contrast Elizabethan English with modern American English. These changes result not just from explicit reforms (the King James Bible, the *Oxford English Dictionary*, Fowler's *Modern English Usage*), but also from individual, local, regional, and national changes in patterns of speech. We don't simply wake up one morning and begin speaking a different version of the language because the government or the New York *Times* says we should. We change the way we speak by adapting everyday usage to signals from various sources about what good language is. Similarly, education practice goes on daily in thousands of classrooms and schools without the guidance of policymakers or reformers. Patterns of practice vary among individuals, localities, regions, and whole nations. Occasionally we try to introduce changes in this practice by changing policy and administration. Often, we cause dramatic changes to take place over long periods of time. But at any given time, the effects of specific changes are much like the effects

of specific attempts to reform language—diffuse, uncertain, and variable.

To summarize, then, education works through the interdependence of policy, administration, and practice. Conflicts among these spheres result from differences in rewards, incentives, and conditions of successful performance among elected officials, administrators, and teachers. Slack is an inevitable result of the fact that people in one sphere depend on those in other spheres for the specialized knowledge necessary to get their jobs done. Reforms can be initiated by shifts in policy, administration, or practice in no necessary order. Because of the interdependence, conflict, and slack, reforms cannot be expected to have large-scale or long-term effects unless they involve substantial communication among policy, administration, and practice. Changes in education, like changes in language, are composites of practice, structure, and rules.

III. THE LESSONS OF RECENT REFORMS

Much of the present debate on the relationship between policy and practice grows out of research on recent federal attempts to reform schools. While proponents of the new reform agenda are eager to dissociate themselves from the mistakes of federal reform since 1960, they are likely to repeat many of these mistakes in the absence of a clear understanding of that experience. The emphasis may have shifted from federal to state and local policy, but the issues are much the same.

CURRICULUM DEVELOPMENT IN SCIENCE, MATH, AND SOCIAL STUDIES

One major federal attempt to reform educational practice was the National Science Foundation's (NSF) attempt, beginning in the late 1950s, to develop new elementary and secondary curricula in science, math, and social studies. The mechanism behind federal involvement in curriculum development was to bring together the best available experts around the question of what should be taught, to subsidize university faculty with expertise in the subject (*not* elementary and secondary teachers and not curriculum specialists) to develop model curricula; and then to train elementary and secondary teachers in the use of the curricula through workshops. NSF entered curriculum development in 1956, providing financial support to the Physical Science Study Committee (PSSC) centered at MIT and Harvard. PSSC produced and disseminated a highly regarded high school physics curriculum. This project was followed by similar projects in biology, chemistry, mathematics, and social studies. The scope of subjects expanded to the elementary level with the later projects. These projects were ambitious, both in the types of changes they proposed for traditional patterns of teaching and in the number of teachers they attempted to reach. The curriculum reforms were to move teachers away from textbook-based teaching toward experience-based learning and to get students engaged in informal, exploratory activities, rather than rote learning. Teachers and students alike were to be inspired by a new view of learning as individual insight and discovery, rather than the accumulation of facts. By 1977, about 45 percent of high school science teachers had attended at least one NSF-sponsored workshop, about one-third of junior high science teachers, and about 10 percent of

elementary teachers. In mathematics, about one-third of high school teachers, about one-quarter of junior high teachers, and about 5 percent of elementary teachers had attended NSF-sponsored activities. In social studies, only about 10 percent of teachers at any level attended. The overall level of exposure to new materials was significant (Weiss, 1978, pp. 6–7).

A survey of school districts in 1976–77 found that NSF-sponsored science materials were in use in about 30 percent of elementary schools and about 60 percent of secondary schools, mathematics materials were in use in less than 10 percent of elementary and secondary schools, and social studies materials in about 25 percent of both elementary and secondary schools. About 40 percent of teachers had used one or more NSF-sponsored materials in science, about 20 percent in social studies, and about 10 percent in mathematics. Those who conducted the study said that these estimates of adoption were probably on the conservative side, because many of the techniques in NSF-sponsored materials had been incorporated into standard textbooks by the time of the survey. The study found that about 20 percent of the elementary teachers surveyed did not feel well-qualified to teach science; at the secondary level, about 12 percent of those who were classified as science, math, and social studies teachers said they did not feel well-qualified to teach their subjects. Asked to identify areas in which they could use assistance, three-quarters of the teachers surveyed said they did not need help in lesson planning, teaching, or maintaining discipline, but did need assistance in obtaining information about new instructional materials and learning new teaching methods. The survey found that the textbook was still the preferred method of organizing course content, despite concerted efforts to substitute more flexible materials. Lecture-discussion was still the dominant method of instruction, despite attempts to change to the discovery method (Weiss, 1978, pp. 8–17).

The NSF strategy caused large investments of money and talent in curriculum development, it produced new ways of teaching and the training and materials to support them, and it made substantial short-term changes in many schools and districts. However, it did not reach large numbers of professionals, and those it did reach did not necessarily change their mode of practice beyond the occasional use of one or more NSF-developed package. It introduced many important changes in the content of instruction that were incorporated into widely adopted textbooks, but it did not cause a substantial shift away from established methods of instruction.

The NSF strategy embodied a particular view of policy and practice. The "authorities" were university faculty with strong credentials in

their subjects. The strategy of reform was to place developmental resources in the hands of these authorities and to bring the results of their work to classroom teachers through summer workshops. Teachers and administrators were viewed as eager and pliable recipients of new knowledge, rather than as creators of their own norms of good practice. The results of the NSF strategy differ markedly from this view. "Teachers were influenced by external factors," analysts of the NSF experience have concluded, "only to the extent that it suited them and their circumstances allowed it" (Atkin and House, 1981, p. 13).

PLANNED VARIATION EXPERIMENTATION

An even more ambitious developmental reform occurred in the late-1960s and early 1970s in Follow Through, a compensatory education program designed as a field experiment to test the relative effectiveness of several models for educating disadvantaged children in kindergarten through third grade. Experts in early childhood education, most affiliated with colleges of education, were given substantial amounts of money to develop program models. Each model was implemented in more than one setting, and a large-scale evaluation was conducted by an independent research organization to determine the relative effectiveness of the models. Over a decade, the program involved nearly 80,000 children, more than 20 models, and an expenditure of more than $50 million on the evaluation alone.

Throughout the experiment, the developers, many of whom were using models designed in university "lab schools," noted the extreme difficulty and complexity of introducing new instructional techniques into "regular" school settings. The better developers used sophisticated methods for training teachers in their models, relying on both on-site visits by experts trained in the model and summer workshops. Even given a high level of training, there was a large amount of variability in classroom-to-classroom, school-to-school, and district-to-district implementation of the same model. Developers complained throughout the experiment that the tests used in the evaluation were insensitive to the outcomes they were trying to produce and biased in favor of models designed to produce short-term cognitive gains rather than long-term developmental gains. Evaluators complained that developers were not exerting sufficient control over the content of the program in different sites, making it difficult to produce reliable estimates of model-to-model differences (Elmore, 1975).

The last of the Follow Through evaluations was completed in 1976 and was followed by an independent review of the results conducted by

a panel of evaluation experts underwritten by the Ford Foundation. The evaluation concluded that there was weak evidence that models emphasizing "basic skills" (clear, sequential instruction in elementary skills of computation, vocabulary, spelling and language) were more effective than those emphasizing more abstract affective or cognitive development. The independent reviewers disputed this conclusion, supporting their argument with a sophisticated methodological critique. Both the evaluators and the independent reviewers agreed, though, that "there [was] great intersite variation within a given model," that "the effectiveness of a teaching approach varies greatly from one school to the next," and that "the peculiarities of individual schools, neighborhoods, and homes influence a pupil's achievement far more than whatever is captured by" different instructional techniques. (House et al., 1978, p. 130.) Federal officials in charge of overseeing the evaluation concluded that although there was evidence that "compensatory education can work," it was also clear that "in most sites on most outcomes, the results for Follow Through children were indistinguishable from or in some cases even worse than those for children in comparison schools." "Educational innovations," they observed, "do not always work better than what they replace," adding (somewhat defensively), "many might say that we do not need an experiment to prove that" (Wisler et al., 1978, pp. 179–180).

The irony of these conclusions seemed to escape the evaluators, their federal sponsors, and the independent reviewers at the time. The purpose of the planned variation experiment had been to develop models representing systematically different approaches and to use the best available social science techniques to evaluate those models. The cost and scale of the planned variation experiment suggested that the federal government expected to learn a significant amount about the relative effectiveness of different instructional approaches. What they learned, in fact, was that the effectiveness of instruction depends mainly on factors that were not controlled in the experiment. Variations in effects among classrooms, among schools, and among localities were larger than the variations among models. Because the evaluation emphasized models and not the characteristics of the settings in which they were implemented, the planned variation experiment didn't explain what makes compensatory education work.

Similar to the NSF curriculum development projects, Follow Through proceeded from the assumption that teachers could be taught to do things differently by the skillful application of expertise about compensatory education and social science methods. The process of packaging knowledge into models and training teachers to implement them was an extraordinarily expensive, complex, and protracted one.

The process of evaluating the models was equally costly and difficult. Yet the results showed that the success of teaching was mainly influenced by (undefined) attributes of the setting in which it was done, rather than the expensive expertise and the social science methods brought to bear on teachers.

PERFORMANCE CONTRACTING

In 1971, the U.S. Office of Economic Opportunity (OEO) launched a one-year experiment designed to determine whether monetary incentives could improve the academic performance of disadvantaged children. The experiment involved six contractors, profit-making companies, who negotiated contracts with OEO stipulating that they would be paid on the basis of their ability to produce achievement gains in disadvantaged students. Each contractor worked in two or three sites. Contractors were given fairly free reign over personnel, training, equipment, and program content. Because cost was an important factor in determining net results for contractors, all contractors relied to some degree on techniques for reducing reliance on classroom teachers—teaching machines, instructional aides, programmed learning materials, and the like. Both national teacher organizations—the American Federation of Teachers and the National Education Association—opposed the experiment, and their local affiliates expressed this opposition in several performance contracting sites. Unlike the Follow Through planned variation experiment, contractors were allowed to change their instructional techniques during the course of the experiment, and many did.

All contractors expected to produce substantial gains, and therefore negotiated contracts that set quite high performance standards. They discovered almost immediately that there were severe problems implementing their instructional programs, even though they exercised substantial control of personnel, materials, and content. Some problems arose out of an inability of contractors to supply materials, training, and rewards to teachers and students in a timely way. Other problems arose out of a failure to anticipate how students would respond to their programs. In Las Vegas, for example, "Westinghouse Learning Corporation had to abandon its use of reel-to-reel tape recorders when it found that students learned how to erase the tapes and record obscenities" (Gramlich and Koshel, 1975, p. 24). An "indispensable element" in determining the implementation of projects was the local project director. One director took exception to the contractor's administration, threatened to terminate his site's involvement, hired additional

consultants and staff, and demanded additional materials. Several others made changes that contractors did not endorse. This fact concerned those running the experiment because "some of the more successful project directors . . . took so much responsibility for the success of the companies that their efforts might have even contaminated the experiment's results." (Gramlich and Koshel, 1975, p. 25.)

The evaluation of performance contracting suggested that although participating students did slightly better in reading and math than they would have in "normal" classrooms, they did worse in areas not covered by the contracts and had poorer attendance records. Results varied among sites by as much as one grade-equivalent point on reading and achievement tests, the performance of an average student at a given grade level (Gramlich and Koshel, 1975, p. 42). One contractor seemed to produce results that were considerably better than a control group, three produced results that were either substantially worse or slightly worse than a control group, and the remaining two did neither better nor worse. None of the contractors did well enough to justify the costs. Overall, the conclusion was that "performance contracting was not successful." (Gramlich and Koshel, 1975, p. 50.)

Performance contracting differed from other federal developmental efforts in its heavy reliance on economic incentives to drive educational results, rather than expertise and social science alone. Beyond this difference, however, its similarities with earlier efforts were remarkable. Contractors were the source of knowledge about how to induce students to perform; educational professionals were the recipients of this knowledge and subjected to the application of technology and financial rewards to change their behavior. The results were likewise similar. There was wide variation in implementation from site to site. Contractors failed to anticipate the full effects, positive and negative, of individual responses to their attempts to change behavior. Effects on students were marginal and highly variable.

TITLES III AND IV-C, ELEMENTARY AND SECONDARY EDUCATION ACT

Federal programs that used conditional grants to states and localities to stimulate reform represent a rather different type of developmental reform. Included in the original package of proposals that became the Elementary and Secondary Education Act of 1965 (ESEA) was Title III, which provided support for discretionary grants by the U.S. Office of Education (USOE) to local districts for the development of innovative educational practices. The rationale behind Title III was

to create "broad flexibility in programming, organization, and funding" at the federal and local levels to give "local communities [an] opportunity to develop . . . services they would not have financed with their own resources." "More than any other single provision . . . Title III embodied the aspirations . . . of educational reformers of the Johnson administration" that infusion of new resources would produce a welling-up of creative talent that would fundamentally change the face of American education (Bailey and Mosher, 1968, pp. 54–55). The direct federal-local relationship in Title III, designed explicitly to circumvent unresponsive state educational agencies, inspired immediate political opposition. In 1967, Congress amended Title III into a state grant program; all but 15 percent of the funds were allocated to states for their distribution to exemplary projects in localities. In 1974, Title III was consolidated with six other programs into a new Title IV of ESEA; one part of Title IV was a state-administered formula grant program for instructional equipment and materials, another part was a state-administered project grant program for innovative local programs. Finally, in 1981, Title IV was consolidated again with 26 other programs into Chapter 2 of the Education Consolidation and Improvement Act (ECIA), which first substantially reduced federal support and second passed the money previously used by states to support innovative programs directly to the local level with few restrictions.

Throughout the period from 1965 to 1981, federal grants funded thousands of projects in local districts. In contrast to the other developmental activities reviewed here, the initiative came from local districts, and much of the development was done by local school personnel, rather than being imported into the districts as externally developed innovations. Because no curriculum or instructional technique was common to these activities, as in others, it was impossible to assess their effects on students. At two points during this period, however, the federal government funded studies designed to describe the effects of these developmental programs on state and local agencies. The first of these studies, in 1975, looked at Title III in conjunction with three other federal "Change Agent" programs (career education, bilingual education, and a reading program) (Mann et al., 1975; Berman and McLaughlin, 1975). The second study analyzed state implementation and local effects of the consolidated Title IV program (McDonnell et al., 1980).

The Change Agent study tried to determine what distinguishes federally funded development activities that influence local practice from those that don't. The Title III portion of the study examined local projects that focused on classroom organization (changes in the form and content of teaching) and on staff development (teacher

training). The common elements that seemed to characterize projects with large and lasting effects on district practices were, first, local personnel took a "problem-solving" bias toward the presence of federal money, rather than an "opportunistic" bias, by which the researchers meant that additional money was seen as addressing a problem of local practice that needed solving, rather than as a way of generating more money for district operations. Second, the materials and content of the projects were either completely locally developed or were substantial adaptations of materials developed elsewhere. Third, staff who participated in the projects were involved in their formulation and were regularly consulted in the process of implementation. And fourth, successful projects were characterized by the presence of a committed administrator, usually a school principal or project administrator, who was able to extract administrative support from the local district. The study concluded that federal policies "exercised limited leverage on the course of innovations because they did not critically influence those factors most responsible for effective implementation—the motivations of actors within the institutional setting and the locally designed implementation strategies." (Berman and McLaughlin, 1975, p. 24.)

The effectiveness of Title III in promoting and sustaining innovations at the local level proved to be elusive and difficult to document. The wide variety of projects funded with Title III funds made it impossible to say precisely who was being helped and how. The project grant mechanism favored districts with entrepreneurial, opportunistic administrators. Local projects, not surprisingly, represented the full range of local capacities and priorities, so that even on superficial measures it was clear that many projects were weak and a few were strong. Over time, Title III developed a reputation as an unfocused source of "mad money" for states and localities, rather than as a program with a strategy and a clear identity. Because the money was distributed in fairly small grants across many local districts, and because the projects it funded were often not highly visible, the program failed to develop a strong political constituency. Therefore, when the Congress looked for programs to consolidate in order to simplify an increasingly complex federal program structure, Title III was among the most obvious candidates.

Partly in response to Title III's widely perceived weakness and partly out of a concern for the lack of evidence on the effectiveness of innovations, the USOE established a program in 1974, using the last vestiges of Title III funding, to validate exemplary projects through a central review process called the Joint Dissemination Review Panel (JDRP), and disseminate them to states and localities through the National Diffusion Network (NDN). The JDRP required local

districts seeking validation for exemplary projects to go through a rigorous process of documentation and evaluation. The result of this process was a project description that included content, results, and contact people who could assist other local districts in adopting the project. The NDN provided assistance to adopting districts by linking them with consultants who had a knowledge of exemplary projects (Shive and Eiseman, 1982, pp. 3–10).

With the consolidation of Title III into Title IV, ESEA, states became even more influential actors in development than they had been under Title III. Under Title IV-C, the portion of the new law that replaced the Title III grant program, states exercised broad discretion in the allocation of project grants, and the USOE exercised only the authority to review state plans. This policy produced wide variations among states: 15 allocated large project grants to 10 percent or fewer of the local districts in their states; three states chose to allocate small grants to 90 percent or more of their local districts; the majority of states allocated grants to between 20 and 50 percent of their districts. These widely different strategies produced widely different results from state to state. The largest proportion of state grants (35 percent) were in the $25–50,000 range, and local development of new instructional programs accounted for the largest proportion of local activity (48 percent). Still, researchers found a discernible shift away from the strategy of locally initiated development that had characterized Title III and toward a strategy of state-initiated dissemination and adoption of model programs developed in other settings. A major source of model programs for this effort was the National Diffusion Network, formed out of the ashes of Title III: 45 states had allocated an average of about 25 percent of their Title IV-C funds to local projects that involved the adoption of models developed elsewhere or the dissemination of locally developed models to other settings. This shift was in part due to earlier criticisms that Title III had failed to create transferable knowledge from local development activities. As one state administrator put it, "It's time to stop drilling and start pumping." (McDonnell et al., 1980, pp. 16–25.)

The Reagan administration's proposal to further consolidate Title IV into Chapter 2 of the Education Consolidation and Improvement Act substantially reduced both the state and federal roles in development. Title IV was combined with 26 other programs, the resulting funds were reduced by about 25 percent, the remainder was allocated by formula from the federal to the state level, and then states were required to allocate at least 80 percent of their allotments by formula to localities. Although the effects of Chapter 2 are still uncertain, initial evidence shows that self-conscious development activities of the

sort that occurred in Title III and Title IV-C have virtually come to an end. Localities seem to be using the largest share of Chapter 2 money to purchase durable equipment—computers are the most commonly purchased item—on the expectation that the funds will not be available to support future program activities. State involvement in adoption and dissemination of effective programs has been reduced markedly by clear directions from the federal level that funds are to be passed from states to localities with as little state interference as possible (Henderson, 1983). Federal development activities of the type sponsored by NDN and JDRP have ceased to function (Shive and Eiseman, 1982).

In contrast with the NSF, planned variation, and performance contracting examples, Titles III and IV-C were based on the assumption that reform originates in local settings, rather than in expert knowledge and social science methods. Large amounts of innovation were spawned by this approach, but the results proved extraordinarily difficult to document, justify, and make available to other practitioners. The finding of the Change Agent Study that the key determinants of successful reform were in local factors over which the federal government exercised little influence was both an important insight and the ultimate downfall of locally initiated development as a federal strategy. The finding called attention to the importance of commitment, involvement, and active problem-solving by local practitioners. The federal government capitalized on these factors by capturing and disseminating successful projects. But in the end the importance of local factors meant that federal policies were difficult to justify to an increasingly skeptical congressional audience. The benefits of locally initiated development were so intangible, the payoffs so difficult to demonstrate, and the political constituencies so diffuse and weakly tied to the programs that the activities became impossible to defend against consolidation and budget reduction.

TITLE I, ELEMENTARY AND SECONDARY EDUCATION ACT

Title I was the flagship of Lyndon Johnson's Great Society education program. The idea behind it was appealingly progressive and seemingly simple. The federal government would distribute a large amount of money, beginning with about $1 billion per year in 1965 and reaching over $2 billion in 1980, to localities based on the incidence of poverty, and require that those funds be used to supplement the education of disadvantaged children. In the language of the framework developed at the beginning of this section, Title I was primarily a

redistributive policy. There was little question in the minds of the reformers who worked on ESEA that Title I would enhance the education of disadvantaged children, improve their achievement, and hence redistribute economic and social opportunities in society. The reformers were not naive, however, about the difficulties of bringing about this result. They understood that the program "called for performance that was probably beyond the existing capability of most . . . local educational agencies." (Bailey and Mosher, 1968, p. 51.) Consequently, they built into Title I several controversial requirements for review of local programs and for evaluations of their results that were designed to hold local districts responsible for producing tangible results with disadvantaged children (McLaughlin, 1975). The redistributive aims of Great Society reformers were not, however, universally shared by congressional supporters of Title I. "It was the executive branch that pushed for a new focus on the special needs of the disadvantaged;" for local school districts and their representatives in Congress, "the objective clearly was the provision of new federal assistance, . . . not reform." (Murphy, 1973, p. 169.)

This early ambiguity reflected a tension in Title I that was to characterize every aspect of the program's implementation. From the beginning, local districts have had a strong incentive to define the legitimate uses of Title I money as broadly as possible, so as to get the maximum benefit for the largest number of children. In the parlance of federal programs, this was called a preference for "general aid." The federal government and, more important, the constituencies representing the redistributive objectives of the program have a stronger incentive to define the legitimate uses of Title I funds as narrowly as possible so as to target them on the most disadvantaged children for the greatest redistributive effect. The main tool the federal government had for assuring that localities heeded the redistributive purposes of the program was regulation—restrictions on the uses of funds, on administrative practices, and on program content. Hence, as the federal interest in Title I became increasingly distinguished from the local interest, the program developed into a more regulatory policy.

Although the formulation of Title I was the province of Johnson administration reformers, the early implementation of Title I was dominated by so-called "traditionalists" within the USOE, who reflected a limited view of the federal role (Mazmanian and Sabatier, 1983, pp. 189–190). The traditionalists took the position that the agency should move funds as quickly as possible to localities with the minimum possible restrictions and the maximum local discretion. Consequently, initial expenditure decisions at the local level reflected a broad interpretation of legitimate uses of Title I funds. It wasn't until

1969, when the Legal Defense and Educational Fund of the National Association for the Advancement of Colored People published the results of an investigation into local Title I expenditures suggesting extensive misuse of funds, that the USOE began to reverse this position. This investigation served as a rallying point for constituencies representing the interests of disadvantaged children and for their allies, or "reformers," inside the USOE. As constituency pressure mounted, congressional advocates became more vocal and between 1970 and 1975 Congress passed a series of amendments tightening federal controls and increasing federal oversight. These congressional actions were matched by USOE's tightening of regulatory requirements to prevent local districts from supplanting local funds with Title I funds and to require them to concentrate Title I funds on predominantly poor schools. The tightening of regulations was followed by audits, program reviews, and enforcement actions against selected states and localities (Mazmanian and Sabatier, 1983, pp. 196–198).

Over time, the federal government moved toward a more regulatory posture in Title I, enforcing increased local compliance with federal targeting and concentration objectives. Between 1966 and 1978, while the number of eligible Title I children was increasing by 80 percent (from 5.5 million to 9 million), the number of actual Title I participants declined (from 8.2 million to 5.1 million), and the Title I per-pupil expenditure increased from about $120 to over $190, adjusted for inflation (Kirst and Jung, 1982, p. 128). In 1977, 49 percent of Title I participants were both poor and low achieving, and about 40 percent were not poor but were low achieving. Only about 13 percent of Title I participants were neither low achieving nor poor (Peterson, 1983, p. 96). These data show a remarkable targeting of federal resources.

On the question of whether increased compliance resulted in better compensatory education and more benefits for disadvantaged children, the evidence is less heartening. In programmatic terms, local experience under Title I was similar to that of federal developmental policies. Many exemplary local projects emerged; these were captured and disseminated by the federal government. Adoptions of exemplary projects by other local districts, however, were disappointingly low (Shive and Eiseman, 1982, pp. 11–19). In terms of student achievement, there is substantial evidence that after one year "Title I students score higher than would have been expected if they were not in Title I," but "this finding does not hold across all elementary school grades and subjects." (Kaestle and Smith, 1982, pp. 398–399.) Studies of aggregate effects over longer periods show conflicting results. One nationwide study done in 1972–73 showed no significant differences between Title I students and comparable non-Title I students; another study

completed in the late 1970s shows positive effects that were "detectable" but "not large" (Peterson, 1983, pp. 99–100; Kaestle and Smith, 1982, pp. 398–399). "When considered as a whole," the widely shared conclusion is, "Title I evaluations [show] that the effects of . . . compensatory education programs vary so widely from place to place that, on average, they do not have an impact substantial enough to be measured easily." (Peterson, 1983, pp. 100.)

More problematical than the academic effects of Title I, however, are those related to school organization and practice. The federal government's regulatory strategy resulted in "an organizational structure for the delivery of services that was independent of the regular school program," a result consistent with requirements that local districts account for and target funds carefully. "In classrooms the segregation of Title I from the regular school was almost . . . complete," with 70 percent of Title I students receiving instruction in "pull-out" classes for a portion of the school day. The pull-out practice, it is important to note, is not required by federal law or regulation; it is an administrative expediency in response to federal targeting requirements. The easiest way to demonstrate supplementation is to deliver compensatory education to a select group of students in a separate setting for a fraction of the school day. The result of federal success in targeting Title I funds on poor, low-achieving children, then, is a structure that is "constitutionally dubious, educationally questionable, [and] insupportable by the evidence from most evaluations." (Peterson, 1983, p. 102.) This structure "may have given regular staff the sense that the federal government did not trust them to do the job," it "relieved the regular staff of the responsibility to ensure that their lowest-scoring students would succeed," it fragmented the school day for Title I students, and it created a parallel federal administrative structure that "placed no pressure on the regular structure to improve, and ensured that little of lasting importance would remain if federal dollars were withdrawn." (Kaestle and Smith, 1982, p. 400.) In other words, the regulatory strategy in Title I introduced changes that generated modest aggregate benefits in the achievement of Title I students in return for fairly serious costs to school organization and practice.

It is not accurate to say that because a federal policy produces weak aggregate effects varying from one setting to another, reform is necessarily a failure. The verdict must be much more cautious. In fact, Title I produced a wealth of practical insight at the school and district level into the special problems of educationally disadvantaged children. This insight probably would not have occurred without the introduction and targeting of federal funds. Over time, furthermore, many states and localities developed positive ways of responding to Title I

requirements that not only allowed but encouraged effective educational practice. In the late 1970s and early 1980s, Congressional and independent analysts found substantial evidence of "administrative maturity" in Title I, by which they meant a transition from a strict compliance-orientation to federal requirements to a more developmental view of those requirements. This maturity seemed to be the result of a two-step process of, first, adjusting to new federal priorities and funding requirements, and second, learning how to capitalize on the developmental opportunities presented by those requirements and translate those requirements into effective educational practice (McDonnell et al., 1982, pp. 112–113). As might be expected, there is as much local and state variability in program maturity as there was in initial compliance. The general maturing of Title I is probably partly what accounts for the fact that, despite prior complaints about federal paperwork and restrictions, states and localities largely perceived Title I as an important part of their program structure in 1981–82 and were largely skeptical about the Reagan administration's attempts to convert it to a block grant.

On the negative side of the regulatory approach of Title I, then, is the message that the federal government delivered—intentionally or unintentionally—to state and local practitioners about the nature of their work: Compliance with federal requirements was more important than professional judgment about school organization and practice. Compliance would ultimately work to the benefit of disadvantaged children, the argument went, because federal policymakers and administrators know more than local practitioners about the conditions for successful compensatory education. Furthermore, local practitioners are prone to poor judgments about how best to serve disadvantaged children—judgments that spread resources too thin, that obscure the boundaries between Title I and the regular program, and that fail to acknowledge the level of resources required to make compensatory education work. Therefore, it is important to replace local judgment with rules that protect the recipients at the expense of the practitioners who serve them. The irony of this message, of course, is that the success of the enterprise ultimately hangs on the behavior of the people to whom the federal government has communicated its distrust.

On the positive side, the federal government achieved a level of focus by states and localities on the needs of disadvantaged children that would not have occurred without concerted federal effort. It also set in motion, and provided additional resources for, a host of developmental activities, some of which have matured into effective practice. The irony is that as often as not, these positive effects of Title I occurred in spite of, rather than because of, the federal government's regulatory and redistributive strategy.

SCHOOL DESEGREGATION

The United States Supreme Court's command in *Brown v. Board of Education* to desegregate the nation's schools with "all deliberate speed" set in motion a process characterized more by deliberation (some would say deliberate avoidance) than by speed. This protracted process of school desegregation is an important example of the use of federal policy as an implement of reform because it raises the possibility that policies initiated through litigation and constitutional interpretation might produce different effects than policies initiated through legislative politics. "The prevailing view," says one leading legal scholar, is "that, unlike most issues resolved in the give-and-take of pluralist politics, race is peculiarly the province of the judiciary," and that "while negotiation and compromise are said to characterize the normal process of policy resolution, racial questions are routinely defined in constitutional or ideological terms, with principle and precedent substituted for bargaining and brokering." (Kirp, 1982, p. 50.) It is possible, then, that responses to judicially mandated, constitutionally based federal policies are different from those that attend legislatively initiated policies.

Brown v. Board set in motion a long line of lower court decisions, congressional actions, and regulatory actions designed to assure equality of access to education without regard to race. On the judicial front, the progress of school desegregation was less a matter of implementing policy, per se, than of adapting legal doctrine to local conditions. Lower-level federal courts, and occasionally the U.S. Supreme Court, were asked to respond to specific cases arising out of disputes over the meaning of *Brown* between parties representing minority schoolchildren and local boards of education. On the legislative front, the Congress created four main mechanisms to affect school desegregation. Title IV of the 1964 Civil Rights Act authorized the U.S. Justice Department to file suit on behalf of plaintiffs in recalcitrant school districts and authorized the U.S. Department of Health, Education, and Welfare (HEW) to provide technical assistance to desegregating school districts. Title VI of the 1964 Civil Rights Act required federal agencies to apply nondiscrimination requirements to federally funded activities and to withhold federal money from recipients failing to comply with those requirements. The Emergency School Aid Act of 1972 provided financial assistance to school districts undergoing desegregation.

The regulatory activities of the federal government that focused on school desegregation were based on Title VI and were implemented by HEW's Office for Civil Rights (OCR). Federal policy toward school desegregation was, and still is to some degree, redistributive and

regulatory, but in a different sense from Title I of ESEA. The imperative behind school desegregation is a constitutional right to equal access, not just a congressional determination that certain children should receive benefits of a certain kind.

Initially, OCR's enforcement efforts were fairly indulgent, allowing southern school districts to certify compliance without serious threat of enforcement. An early attempt to initiate enforcement in the north against Chicago was thwarted by a direct appeal from Mayor Daley to President Johnson (Mazmanian and Sabatier, 1983, pp. 157–158; Rabkin, 1983, pp. 318–319). Between 1966 and 1968, however, OCR concentrated on southern school districts, steadily tightening its enforcement by instituting procedures for withdrawal of federal funds. This strategy produced a substantial record of compliance among southern school districts. Title IV technical assistance, administered by USOE, took a back seat to OCR enforcement by concentrating on the technical aspects of formulating desegregation plans, rather than the educational problems attending desegregation. Supreme Court decisions in 1968, 1969, and 1971 kept judicial pressure on OCR after the change in administrations from Johnson to Nixon resulted in a softening of presidential leadership.

The effects of this strategy on southern black school enrollment were impressive. The proportion of black schoolchildren attending segregated schools dropped dramatically. In 1962, 99.5 percent of southern black school children were attending all-black schools. By 1970, 24 percent were attending such schools, and more than one-third were attending schools that were less than 50 percent black (Mazmanian and Sabatier, 1983, p. 140).

The story in the north, however, was entirely different. The constitutional issues were different in the north, because northern school districts had not maintained dual school systems for black and white students. Hence, official action in the maintenance of segregation was difficult to prove. Litigants in the north were unable to exert the same kind of leverage over local officials as in the south. Also, the OCR clung to its southern enforcement strategy despite explicit directions from Congress in 1968 to equalize enforcement in the north and south (Rabkin, 1983, p. 320). The Supreme Court did not address the question of northern desegregation until 1973, and then it explicitly demurred from setting a standard based on segregated results rather than official intent to segregate (Kirp, 1982, p. 55). Although results in the north were important, they have been much less dramatic than those in the south. Between 1968 and 1976, the proportion of black schoolchildren attending all-black schools declined from about 31 percent to about 14 percent, while the proportion attending schools that

were less than 50 percent black rose from about 28 percent to about 43 percent (Kirp, 1982, p. 55).

The Nixon administration's sponsorship of the Emergency School Aid Act (ESAA) in 1972, and the Act's subsequent renewal over the Nixon administration's opposition in 1974, marked a substantial shift in federal strategy from one relying primarily on enforcement and the sanction of withdrawing funds to one that offered positive inducements to desegregating districts. ESAA's purpose was to defray some of the additional costs incident to desegregation, although Congress stipulated that the funds could not be spent on busing, the single most costly activity associated with desegregation in most districts, and that they could not be used for activities that were part of a desegregation plan mandated by court order or by local agreements with OCR (Peterson, 1983, p. 131). Some have interpreted ESAA as an attempt by the Nixon administration to curtail federal involvement in school desegregation by substituting assistance for enforcement (Orfield, 1978; Peterson, 1983). Whether this is true or not, ESAA augmented federal policy by providing financial incentives to desegregating districts.

ESAA's effects were mixed. Less than one-half of districts that were known to have reduced racial isolation substantially received funds, and 14 percent of districts receiving ESAA funds did not reduce racial isolation at all (Orfield, 1978, p. 130). ESAA funds were concentrated on identifiable instructional activities, however, and seemed to have positive effects on student achievement. (Orfield, 1978, p. 131.)

As the proportion of children attending desegregated schools rose, problems of implementing school desegregation surfaced. "White flight" from urban to suburban districts and from public to private schools became a documented fact and a matter of increasing concern to both advocates of desegregation and urban school administrators. Segregated housing patterns constrained the degree of feasible school desegregation, causing some to argue for "quality" education in all-minority schools and others to argue for progressively more ambitious and extensive desegregation plans. Opposition to busing as a tool of desegregation became more visible. Questions about the quality of race relations within schools, about within-school segregation, and about the quality of the academic program in desegregated schools threatened to undermine desegregation efforts (Hawley, 1981; Orfield, 1978).

The implementation of school desegregation within this ambit of judicial remedies, OCR enforcement, and federal assistance developed along familiar lines. The courts' initial expectation that local school boards, administrators, and citizens would accept the constitutional requirement of equal access was much too optimistic. "Consensus proved impossible, resistance to school desegregation was unflagging,

and the process of persuasion yielded important but only incremental results." (Yudof, 1981, p. 251.) As a consequence, the Justice Department, the federal courts, and the OCR adopted a tighter, unyielding stance characterized by clearer standards, tougher enforcement, and a more adversarial posture. This posture produced impressive results, but they varied widely from district to district. Serious questions were raised about the meaning and utility of desegregation. Whether judicially mandated or voluntarily undertaken, desegregation produced protracted bargaining and negotiation among interests within districts. This bargaining, in turn, produced considerable shifts in the distribution of power within school districts and steadily escalating demands on the system (Kirp, 1982, pp. 264–276). So long as the "remedy was to mix black and white students and faculties in some designated proportions," progress was substantial, but as concerns moved to "more complex and difficult-to-monitor objectives," such as the quality of integrated education and the effects of within-school segregation, tight enforcement became less useful and, in some cases, counterproductive. (Yudof, 1981, p. 255.) Finally, as the complexities of desegregation have become more apparent, in the form of white flight, segregated housing patterns, opposition to busing, and the effects of desegregation on pupil achievement, the emphasis has shifted away from strict compliance as a measure of success toward the social, political, and educational correlates of successful desegregation. Later court decisions took their point of departure from the assumption that "if desegregation is to succeed in an educational sense, the cooperation of teachers and administrators must be secured," and this cannot be done "by gross formulas for allocating students to different schools within the system." (Ibid., 258.)

The operating principles that arise out of this concern for the correlates of successful desegregation emphasize adaptations to local conditions. Stabilizing white flight and minimizing the effects of housing segregation on schools require careful assessment of racial composition of neighborhoods. School attendance areas and desegregation plans should be designed to capitalize on racially mixed neighborhoods and to combine adjacent segregated neighborhoods so as to minimize the need for busing (Hawley et al., 1983, pp. 63–65). Parental resistance should be addressed frontally by emphasizing the quality of educational programs in the schools, by organizing multi-ethnic parent committees, and by encouraging parent participation (Hawley et al., 1983, pp. 73–86). Within-school segregation and the effectiveness of instructional programs should be addressed with explicit changes in curriculum and tracking practices, accompanied by a long-term commitment at the district level to training and staff development for school

administrators and teachers (Hawley et al., 1983, pp. 105–123, pp. 137–159).

In the end, then, the consequences of judicially mandated, constitutionally based reforms have been quite similar to those of legislatively initiated reforms, even though the institutional structures and processes are quite different. Initial lack of clarity was followed by a substantial shift toward clarification of federal objectives and a heavier reliance on regulatory enforcement and litigation as a mechanism of reform. This strategy was followed by a gradual recognition of the wide variability among localities, an increasing appreciation of the correlates of local success, and a reformulation of policy to accommodate those correlates. The future of federal policy in this area, however, is equally uncertain with that of other areas. In 1981, the Emergency School Aid Act was consolidated into Chapter 2 of the Education Consolidation and Improvement Act over the strenuous objections of urban school systems, removing the federal government's main mechanism of influence over the correlates of local success in desegregation.

CONCLUSION: THE LESSONS OF RECENT REFORMS

Several general themes emerge from this cross-section of federal reform efforts. First, federal policy has extended its reach to all activities of schooling. Developmental efforts have reached directly into the classroom by attempting to change conventional methods of teaching. Redistributive efforts have affected the allocation of resources between and among states and school districts. Regulatory efforts have affected the internal structure of schools and the classroom practice of teachers. One view of this evidence is that the federal government has overreached its authority by intervening in areas that are the appropriate concern of state and local policy. Another view is that using policy to reform the schools is fundamentally about changing the allocation of resources, the structure of schools, and the practice of classroom teachers. To say that *any* level of government can "reform" education without affecting these things is to misunderstand what reform is about. This alternative view is consistent with our earlier observation that relations among levels of government are based on shared authority, not on clear divisions of responsibility. In devising relations among levels of government the important question is not which level of government should perform which function, but what pattern of shared authority for a given function is likely to produce the best

results. The important question is not whether the federal government, or any other level of government, should try to influence resource allocation, structure, and practice, but how skillfully they do it, with what degree of success, and with what level of understanding. It is on these dimensions that federal policy is weakest.

A second theme cutting across federal reform policies is a tendency to substitute external authority—social science methods, university experts, regulatory requirements, and legal principles—for the authority and expertise of educational practitioners. Federal policy has communicated at worst a fundamental hostility and at best an indifference to the authority and expertise of educational practice. Federal development policies, exemplified by NSF curriculum development and by planned variation and performance contracting experiments, treated practitioners as receivers of expert knowledge, rather than developers of new modes of practice. Where federal policy tried to treat practitioners as developers, in Title III of ESEA, the results were highly variable and politically insupportable. Redistributive policies, exemplified by Title I and school desegregation, were initially oblivious to questions of practice, instead emphasizing targeting resources and changing racial balance. As these policies matured, it became increasingly clear that their success hung more on school organization and classroom practice than on moving money and children. But one effect of the initial insensitivity to practice was, as exemplified by Title I, the introduction of structures that substituted administrative expediency and regulations for professional judgments of effective practice. As noted earlier, the use of policy as an implement of reform grows out of a fundamental distrust of professional judgment. But the dilemma that accompanies this use of policy is that the fate of reforms ultimately depends on those who are the object of distrust.

Third, variability is the rule and uniformity is the exception in the relationship among policy, administration, and practice. Whether the effect of policy is defined as pupil outcomes, as changes in the allocation of resources among schools or students, as changes in the way schools or districts are organized, or as changes in classroom practice, the responses of schools to changes in policy are widely variable. Policymakers bent on reform typically underestimate the range variability they can expect in response to changes in policy. NSF curriculum developers expected a superior curriculum to meet with widespread approval and adoption. Designers and developers in the planned variation and performance contracting experiments expected fairly consistent implementation of models across settings and consistent patterns of effects across models. Title I was predicated on the assumption that, if school districts would concentrate resources on disadvantaged

children in a predictable way, those children would become more like their advantaged peers. Advocates of school desegregation assumed that providing equal access to minority students according to uniform standards of racial balance would result in a better education for everyone. In no case were the underlying assumptions about uniformity of results borne out by experience, even though there was much success to be found in variability. The only federal policy among those we've examined here that seemed explicitly to anticipate variability was the state and local development strategy contained in Titles III and IV-C. But this is the exception that proves the rule. Confronted with the wide variation in responses of states and localities to federal development incentives, policymakers saw instead the lack of uniform results. And the lack of uniform results was the downfall of the programs.

To an important extent, reforms succeed to the degree that they adapt to and capitalize upon variability. Policy operates on a high level of abstraction and tends to concentrate on general rules that apply to a wide variety of circumstances. For this reason alone, policy is often not useful to administrators and teachers in solving concrete problems of practice. Conflicts between policy and practice, as noted earlier, are inevitable. The question is not whether they occur, but how they are handled. At some level, all attempts to reform education with policy are problems of development, because reforms work only when they can be translated into new patterns of practice. As Title I demonstrates, simply targeting additional resources on disadvantaged children doesn't improve their education. Those resources have to be translated into ways of organizing and teaching. This learning occurs with a wide degree of variability across local settings. In school desegregation, the same conclusion is evident; the general policy succeeds to the degree that it is manifested in specific decisions about attendance areas, school programs, tracking practices, and community relations.

Some reforms adapt to and accommodate variability better than others. Ironically, the NSF curriculum development effort adapted quite well, even though its proponents had broader ambitions. It had a far-reaching, if weak, effect on curriculum content, even though it did not change the conventional structure of classroom practice. The planned variation experiment was, in many respects, a parody on developmental policy, pursuing a quixotic vision of systemic comparisons among program models in the face of growing evidence that local conditions were the more influential determinants of outcomes. Title I had a mixed record, focusing initially on targeting resources and gradually acknowledging broader developmental questions, but leaving behind a residue of regulatory requirements that made adaptation difficult. At some

point, all policies confront adaptation to variability as a condition of success.

Fourth, and closely related, adaptation is not simply a matter of policymakers acquiescing to local and regional differences in tastes and competencies. It is, more fundamentally, active problem-solving. The RAND Corporation study of federal change agent programs found a high correlation between the persistence of developmental activities and locally initiated problem-solving, adaptation, staff involvement, and administrative support (Berman and McLaughlin, 1978). This finding underscores the essential fact that policies affect resource allocation, organization, and practice when individuals see that changing these things leads to results with which they concur. Most adults act on solutions crafted from their own experience and practical judgment, informed by what they can learn from others whose judgments they trust. If they have no investment in the change, then their willingness to make it work is limited. People develop an investment in change by applying their own skills.

Fifth, lags in implementation and performance are a central fact of reform. Title I was called a failure by political opponents and educational critics within four years of its passage in 1965, because it had not materially improved the education of disadvantaged children. Yet it was not until the mid-1970s that the effects of Title I—both positive and negative—on resource allocation, organization, and practice became evident. And it was not until the mid-1970s that the federal government began to concentrate systematically on the developmental side of delivering compensatory education, by finding and disseminating examples of effective practice. School desegregation was essentially unimplemented between 1954 and 1966, but between 1966 and 1976 the racial composition of schools in the north and south changed substantially. By the late 1970s and early 1980s, school systems had moved from grappling with racial balance to grappling with the effects of racial balance on organization and practice. Policies take time to mature, evidently. The maturing of policies has to take place through their steady elaboration into changes in conventional ways of doing things.

Finally, there is abundant evidence that the time it takes for reforms to mature into changes in resource allocation, organization, and practice is substantially longer than the electoral cycles that determine changes in policy. Elected officials can generate new policies at a much greater rate than schools can implement them. Policy reforms are generated on "electoral time," but they are implemented on "administrative time" and "practice time." Hence, the educational system never seems to perform consistently with policymakers' or critics'

expectations. Or, alternatively, the system seems to be just getting the hang of the last generation of reforms when the next one is underway. This instability of reforms, coupled with the inherent conflicts that policy generates among policymakers, administrators, and practitioners, can create a sense of turmoil and alienation among administrators and teachers. This problem is particularly evident with recent changes in federal policy, which have shifted signals considerably at a time when most states and localities were becoming well-adapted to the federal presence and the federal government was becoming increasingly well-adapted to local variations.

The lessons of federal experience with reform all seem to lead to the same place: the school and the classroom. Policy, regardless of which level of government initiates it, ultimately affects schooling to the degree that it affects organization and practice. Problems of variability, adaptation, lags in implementation and performance, and the seeming unresponsiveness of the "system" to shifts in policy all find their roots in what happens in the school and classroom. The steady work of educational reform, in other words, must be grounded in an understanding of how teachers learn to teach, how school organization affects practice, and how these factors affect childrens' performance.

IV. POLICY AND PRACTICE AT THE LOCAL LEVEL

Educational reform policies have generated substantively different problems for educational practice. Reforms in science, math, compensatory education, and desegregation involve different technologies, different policy implements, different student groups, and different expectations for implementation and outcome. With few exceptions, the ultimate target of reforms, implicitly or explicitly, has been the classroom teacher. If educational reform involves steady work, it also has had changing classroom practices as a constant underlying motif and nemesis. Larry Cuban (1984, p. 259) examined a multitude of reforms undertaken in American education over the past century. He concludes:

> Whether ideas come from child-centered advocates, technologically inspired reformers who see microcomputers in every classroom, enthusiasts dedicated to outflanking teachers by getting teacher-proof materials into student hands or researchers intent on disseminating results of effective teaching—the unchanging, consistent target was moving the classroom teacher from one set of practices to another.

Teachers teaching in classrooms is what education is about. Affecting the attitudes, skills, and behavior of teachers is what reform is about, if indeed reformers intend to influence what is taught and how. Understanding the variable results of reform efforts comes down finally to understanding the incentives, constraints, practical problems, and institutional realities of classroom teachers. What teachers do and the institutional context within which they do it sets primary conditions for the limits and possibilities of reform.

THE REALITIES OF EDUCATIONAL PRACTICE

Everyday classroom practices in school districts around the country mirror the variability that marks local response to reform policies. This results from the institutional context of teaching as well as the nature of teaching as work. The organizational structure of schools and school systems provides one important source of variability. Schools are only loosely related to one another and to central offices (Weick, 1982). Consequently, at the district level, there is no consistent relationship among units within the school system, line

authority is limited, and practice is segmented. Although school districts are structured as bureaucracies, education practitioners generally are not subject to hierarchical control in their work, and uniformity in practice is difficult to command.

School-level structure is analogous. The isolation of the classroom teacher and the cellular organization that characterizes practice have been much commented upon (Boyer, 1983; Fullan, 1982; Jackson, 1968; Lightfoot, 1983; Lortie, 1975; McPherson, 1972). Teachers have little opportunity to observe their peers, to compare classroom practices, or to support each others' efforts. Indeed, in many (and probably most) schools, time spent with colleagues is perceived as "stolen" (McPherson, 1972, p. 51). Further, the powerful norm of "noninterference" associated with conventions of teacher autonomy makes frank discussions about classroom practices difficult. Both the organization of the teaching task and the norms of the profession inhibit the organizational control and communication that could bring a measure of consistency to teacher practices.

Variability has additional origins. Unlike other areas of professional or semi-professional activity, there are no agreed-upon or well developed techniques, strategies, or unambiguous directions for successful educational practice (Lortie, 1969, 1975; Sarason, 1982). Although there are broad guidelines suggesting the components of effective teaching (see Good, 1983, for example), at root effective teaching is a problem-solving activity that relies heavily on teacher judgment and discretion in developing a situationally effective response. However defined, teacher effectiveness is highly contextual and conditional. Student socioeconomic status, school context, pupil abilities, and previous instructional exposures are but a few of the many factors that influence teacher effectiveness for any given student or class (Cronbach, 1975; McKenna, 1981).

Teachers also differ in the practices that work for them and the problems they confront in their particular classrooms (Armor et al., 1976; Good, 1983). Consequently, as Good (1981, p. 418) put it: "One myth that has been discredited by classroom observation is that schooling is a constant experience with teachers behaving in similar ways and pursuing similar goals with a common curriculum." No single specific instructional program works for all teachers or all students; effectiveness depends centrally on the classroom context and a teacher's judgment about how to respond to it (Centra and Potter, 1980).

This suggests that variability is not only inevitable in the specifics of classroom practice, it is a key ingredient of effective performance. It also explains why successful local implementation of the highly elaborated reform efforts of the 1970s was characterized by mutual

adaptation. It explains why subsequent change agent programs assumed a modified research and development model that purposely allowed for local adaptation within the general project framework (Blakely et al., n.d.). It underlies the conclusion that access to alternative practices is important to adoption and development for practitioner commitment and successful implementation (Crandall and Loucks, 1984).

Variability in classroom practice captures the teacher's response to particular situations, pressures, resources, or demands and so is essential to influencing and understanding reform outcomes. Equally as important to reform, however, is the *stability* that marks fundamental patterns of classroom instruction. The variability observed in teachers' practices does not extend to the basic teaching strategies. Teachers' behavior is built upon a core of elemental pedagogical choices; it comprises a finite number of instructional patterns and is remarkably enduring. For example, teachers at all levels of school select one of three basic instructional forms to convey material or build skills: *lecturing*, in which the teacher controls the subject matter; *teacher-pupil interaction*, in which control is shared with pupils; *seat work*, where the teacher's control is indirect and students have limited direct exchange with the teacher (Dunkin and Biddle, 1974, p. 34). In addition to the stability of these fundamental instructional options, the relationship among them is constant. Most teachers at both elementary and secondary levels spend about one-fifth of their time lecturing, about one-third in seat work and the remainder in student-teacher interaction (Dunkin and Biddle, 1974).

At a more general level, Cuban (1984, p. 238) documents the robustness of the "teacher-centered" model of practice. He defines teacher-centered classroom practice as practice in which the teacher controls what is taught, when, and under what conditions. A student-centered model of instruction, in contrast, cedes substantial direction and responsibility to students for content, strategy, and classroom movement. The dominance over the years of the teacher-centered model is evident in five areas of classroom decisionmaking: the arrangement of classroom space; the relationship between teacher and student talk; teacher choices concerning small group, individual, or large group instruction; and the presence of learning centers; the degree of autonomy granted students (Cuban, 1984, pp. 4–5). Based on his review of classroom practices across the country over the past hundred years, Cuban concludes that "the data show a striking convergence in outlining a stable core of teacher-centered instructional activities at the elementary school and, in high school classrooms, a remarkably pure and durable version of the same set of activities." (Cuban, 1984, p.

238.) Both the broad model of classroom instruction and the pedagogical repertoire that defines practice then are quite abiding.

An important implication of the character of central aspects of the teaching task is that reform policies cannot realistically aspire to sweeping or fundamental change in classroom practice without greatly altering the conditions of teachers' work. Reforms concentrating on specific content and instructional strategies can influence practice only at the margins, even where teachers are committed to change and able to carry it out. Indeed, reforms that aimed at change in the broad model of classroom practice generally have failed. For example, planned change efforts calling for a shift to pupil-centered instruction or implying a dilution of teachers' authority through team teaching or technological innovations tended to "be absorbed into and washed out by traditional modes of teaching." (Dunkin and Biddle, 1974, p. 36). What varies, then, is not the core of teaching practice, but the ways in which the core is translated into classroom activities—for example, the ratio of lecture to seat work; visuals that aid teachers' presentations or stimulate teacher-student interaction; materials to support a science laboratory; teachers' choices about when and how to apply a particular instructional strategy. These substantive and largely judgmental factors are based on differences in resources, expertise, commitment, and support. They define observable differences in classroom practice; they comprise the possibilities as well as the limits for reform. Teachers unquestionably can do what they do better. But in fundamental and general terms, what they do is largely fixed by their working conditions.

TEACHER WILLINGNESS

Many reform initiatives have not led to even marginal change in classroom practice. Some analysts diagnose the disappointing outcomes of planned change efforts in terms of "teacher resistance." This view generally frames teacher resistance in terms of noninterest in new ideas and unwillingness to consider change in current practice. At its most critical, this explanation portrays teachers as lazy, unprofessional, and passive. This analysis reflects the frustration of reformers hoping to stimulate new and better practices through policy and it demonstrates the ineffectiveness of a command-and-control model of educational reform. But mainly it misrepresents the reasons underlying teacher unwillingness to embrace an educational reform initiative. Teachers' responses to proposals for change most often are deeply rooted in the nature of their work and in the professional norms,

standards, and concerns that guide practice and support professional learning.

At the most general level, the problem of promoting change in teachers' practices is a problem of promoting learning in adults. Adults seldom learn new skills or attitudes on demand. Requirements to learn new behaviors, particularly when they involve modification or replacement of an existing routine, threaten an adult's already well-organized self-concept and established level of accomplishment. External demand is largely ineffective in stimulating adult learning; the motivation to learn new things must come from within. A comprehensive review of adult learning (Brundage, 1980, p. 48) concludes,

> What seems most clear . . . is that the tendencies which are labeled "motives" arise from within the learner. They are not something added on by an external agent. The behavior of an external agent must be viewed as contributing either to feedback or to reinforcement and by this route indirectly to further motivation.

Similarly, Knowles (1978, p. 31) says that adults are motivated to learn as they experience needs and interests that learning will satisfy—internal incentives, in other words.

For teachers, motivation to learn—willingness to engage in a reform effort—turns on three considerations. The first is tied to the primary source of teacher satisfaction and reward—service to youngsters or transmitting knowledge associated with a particular discipline (Lortie, 1969, 1975; McPherson, 1972). Because teachers' sense of satisfaction and efficacy is grounded in student accomplishment, their willingness to engage in learning about new practices depends above all on their assessment of the consequence of a proposed change for students. Is it appropriate to student needs? Does the practice appear promising for this group of students? The weakness of extrinsic incentives, particularly money, as strategies for motivating teachers to change has been documented time and again in research on planned change efforts. For example, a study of urban staff development underscores the importance of the intrinsic rewards and motivation tied to student performance (Moore and Hyde, 1981). Researchers found that extra pay was not an effective strategy for encouraging teachers even to attend staff development activities. Teachers, they saw, participated meaningfully only where benefits to students were clear.

Teachers not only must see a proposed change as relevant to their classrooms, they also must have a measure of confidence about its consequences for their students. Uncertainty about the effects of a new practice is a fundamental obstacle to teacher willingness to carry it out. This is not surprising given that substantial and recurrent

doubt about the worth of their work with students is a general and consistent teacher characteristic (Ashton, Webb, and Doda, n.d.; Jackson, 1968; Lortie, 1975). Teachers' concerns on this question understandably multiply in the face of a proposed change in practice. Regardless of the level of present student performance, therefore, teachers' acceptance of a new practice is predicated on the belief that students will learn predictably more as the result of it. This confidence is not generated by abstract assurances from academics or program developers nor by reformers' exhortations about the need for change; it is not assured by testimonials from practitioners in distant sites and it most certainly does not follow mandate. It is generated by concrete demonstration of the site-specific and classroom-specific merits of a new practice.

The necessity for teachers to feel confident about the implication of a new practice for their classrooms is one way to interpret the importance of teacher sense of "ownership," a factor consistently associated with successful planned change efforts. The contribution of teacher ownership as achieved through participation in project planning and implementation was a major finding of the Change Agent Study (Berman and McLaughlin, 1978). Similarly, NETWORK analysts concluded as a result of their study of dissemination efforts supporting school improvement that teacher involvement in implementation activities (although not necessarily in extended planning or "make-ready" activities) was essential to engaging teacher commitment. This finding is not restricted to federally supported planned change effort. After looking at teacher response to reform policies initiated over the past 100 years, Cuban (1984, p. 265) concludes "teacher commitment and involvement seldom respond to mandates or coercive threats beyond brittle compliance. Where classroom change occurred . . . teachers seem to have been active collaborators in the process."

Even where teachers are convinced of the promise and appropriateness of a new strategy for their students, their willingness to implement a new practice is mediated by their assessments of their ability to perform competently and the concomitant degree of psychological and professional safety associated with the change effort. Teachers recognize that substantial change almost inevitably involves a period of chaos and uncertainty (Lewin, 1947; Schein, 1972). The acquisition of new skills and attitudes requires that teachers let go of former routines and beliefs—a process Lewin calls "unfreezing." Quite understandably, teachers have many crucial questions about this process. How will they be evaluated during this uncertain period? What kind of collegial or technical support will be available to assist in the transition? How will they know how well they and their students are doing during the implementation process? Can they do it?

Edgar Schein (1972, pp. 76-77), an analyst of professional development and barriers to individual change, points out that "no matter how much pressure is put on a person or a social system to change through disconfirmation [of present practice] and the induction of guilt-anxiety, no change will occur unless members of the system feel it is safe to give up the old responses and learn something new." Teacher concerns about the psychological and professional safety of modifying existing practice, then, can transcend even enthusiastic assessment of the promise of a reform effort. Clarity about procedures, objectives, and project activities is a minimal requirement for teacher assurance about the consequences of participation.

Finally, even when substantive and psychological concerns have been addressed, willingness to change may never convert into action for yet a third reason, what Doyle and Ponder (1977–1978) call the "practicality ethic." Teachers may decline to participate because it does not appear professionally practicable. Is the program a priority for district administrators? Will the time and effort necessary to implement a new project be rewarded professionally? Does the project represent an effort district officials view as risky, irrelevant, or inappropriate in any way? Does the program address what teachers perceive as a priority need for students, or is it nice but not necessary, or relevant only to mid-range classroom concerns?

Costs are another set of practical questions teachers usually explore before responding to a reform policy. Is the full range of personal, material, and professional levies clear? Are teacher responsibilities spelled out? Do the consequences of failure or implementation costs outweigh even optimistic assessments of benefit? Uncertain or negative answers can be off putting even where teachers agree about the value of a proposed change and feel comfortable about carrying it out.

Experience has shown that unless teachers are committed to a reform effort, desultory compliance or complete disregard is the likely result. Teachers' response to educational reform policies highlights the inevitable conflict for professionals in a bureaucracy and teachers' conditional loyalty to the institution and its requests (Scott, 1966). Teacher resistance to change is rooted in educators' incentives and reward systems; it reflects the norms, standards, and behaviors central to professionalism. Ironically, it is often professional concern about a wide range of goals and multiple forms of rationality rather than personal apathy that depresses teacher willingness to change.

TEACHER ABILITY TO IMPLEMENT EDUCATIONAL CHANGE

For teachers to carry out a new educational practice effectively, to varying degrees, they must learn new skills and acquire new attitudes or values. Some educational reform policies turn primarily on the acquisition of new knowledge—adding career education to the social studies curriculum. But most educational reform efforts intend change of a more fundamental sort—in addition to new skills they assume change in the values and attitudes that shape practice. Some of the necessary attitudinal change is rooted in tradition. As Cuban (1984) elaborates, teachers teach as they were taught (see also Nemser, 1983). Replacing practice, then, involves modifying deeply held views about "best practice" and relinquishing long-term beliefs about instruction. This departure from traditional practice is both upsetting and threatening.

Of even greater import is the change in values associated with reform efforts having categorical objectives that are inconsistent with local norms, beliefs, and practice. Most of the reform efforts that were initiated under the rubric of Great Society programs required change of this fundamental sort. Federal compensatory education programs assumed that educators would develop and carry out special programs for educationally disadvantaged youngsters, a group that seldom has received special attention from the public schools. The legislation for handicapped children's education assumed that, contrary to existing practice, children with special educational needs would be "mainstreamed" or integrated into regular classrooms. And, whereas public school practice traditionally had been ethnocentric, bilingual education measures assumed that the public schools would acknowledge and support cultures and traditions of ethnic minorities. Change of this sort involves a learning problem of the highest order.

Acquisition of new skills and attitudes, the fundamental factor defining a teacher's ability to successfully carry out a new practice, is a multi-stage process that involves distinctly different issues and activities. In general, a teacher must proceed through stages of affective and cognitive development appropriate to the change effort. One analyst categorized this process in three rough stages: survival, consolidation, and mastery (Nemser, 1983, p. 161; see also Fuller and Brown, 1975).

The survival stage signals uncertainty about why learning new practices is important and how to function at a minimal level of competence. The basic needs of the survival stage are:

- Effective persuasion that the new classroom practices will make them better teachers,

- Systematic and continuous feedback about the development of new roles and skills,
- Time for reflection and interaction with other teachers (see Howey, 1983, p. 21).

The consolidation stage denotes teachers' efforts to bring together the disparate aspects of project training and to integrate new practices and perspectives into traditional roles and routines. The requirements to successful passage through this second phase include:

- "Safe" rehearsal opportunities,
- Thorough understanding of the practices' conceptual base,
- Clarity about goals, expectations and the teacher role,
- Administrator support and interest.

Thus mastery, the third general stage of teacher development and typically the single focus of most professional development activities, assumes fairly complex antecedent processes of persuasion, rehearsal, feedback, and support. It requires more than rote knowledge; it requires firm understanding of the program's conceptual base. Unless teachers understand the theoretical rationale for a new practice, they will be unable to successfully adapt program activities to the diverse and changing situations that practitioners confront daily. Failure of teachers to acquire conceptual understanding of project methods also helps to explain why many apparently successful planned change efforts dissipate after special project supports are withdrawn and project directors depart. Teachers never actually *learned* project practices in the first place.

Time beyond an isolated workshop or staff development session also is essential to mastery of new practice. Collegial interaction takes time; review of present activities in light of new requirements and precepts takes time; practicing takes time; working on materials and developing conceptual understanding takes time. Lack of time is a perennial problem and primary frustration for teachers (Fullan, 1982; Jackson, 1968; Lortie, 1975). The importance of adequate time is compounded in an educational reform effort when daily routines are complicated by the demands of changing existing practice.

Credible and easily accessible technical assistance is another requirement common to the successful implementation of substantively diverse reform initiatives or planned change efforts. RAND researchers found that successful change efforts usually enjoyed local technical support that could respond to teachers' (generally unscheduled) calls for advice and could easily translate their recommendations into concrete terms of a particular classroom. Outside consultants who

appeared on a prescheduled basis to address prescheduled topics were not nearly as effective, and in some cases they actually depressed project outcomes (Berman and McLaughlin, 1978). Crandall and Loucks (1984, p. 11) report similar findings for the NETWORK's study of a different population of development initiatives. They found that new practices "live or die" by the amount of personal assistance they receive and that effective assistance is "user-oriented" rather than "innovation-oriented." "Its effects—such as reassurance, support, expansion of users' repertoires, problem solving and increased interdependence—help users master the practice."

The ability of teachers to carry out new methods also turns on the extent to which simultaneous demands and competing priorities allow teachers to concentrate on new activities or attend to policy objectives (Lipsky, 1980). The requirements and requests associated with an educational reform effort typically are but one of many that contend for teachers' attention. Students, principals, parents, district administrators, and supervisors as well as multiple and external mandates for change all vie for teacher notice. Reform policies multiply the complexity of the teacher's job by adding more responsibilities and requirements. Reform policies also swell the centers of authority and oversight responsible for classroom activities and increase the centers of categorical activities that impinge on practice (Scott, 1984). Teachers, like other "street level bureaucrats," base their priorities and strategies for reconciling competing demands in the highly particularistic terms of their classrooms and norms of practice (Lipsky, 1980; McPherson, 1972). A teacher's decision to ignore or shortcut a reform policy, then, may reflect assessment of their students' best interests rather than footdragging or resistance to change.

Institutional compatibility also influences teachers' ability to implement a new practice. A teacher's classroom activities generally need to be consistent with the ideology and practice of the school site and compatible with the principal's view of appropriate practice. For example, many teachers participating in staff development activities funded by federal development programs (especially many of the programs consolidated in Chapter 2 of the Education Consolidation and Improvement Act) found their school site inhospitable to the new practices they had learned (Greenwood, Mann, and McLaughlin, 1975). Similarly, teachers trained in open classroom strategies found that principals who had invested in more traditional classroom organization methods were unwilling to tolerate the new practices within the school. Thus, in practical terms, the professional development and new practices supported by these reform policies came to little.

DISTRICT RESPONSES

District administrators' reception to policy goals and strategies also conditions teachers' willingness and ability to take up a reform. As "processors" of the various external demands on the system, district managers set the tone for a planned change effort, establish the priorities and expectations for implementation, and allocate (or withhold) the resources to support project efforts (see Pfeffer and Salancik, 1978, Ch. 5).

The incentives, priorities, and concerns that shape an administrator's response differ in central ways from those that influence teachers. Motivated primarily by questions of practice, teachers evaluate a proposed change mainly in terms of expected classroom consequences and norms of professional behavior. Central office staff and school principals, however, must attend to other issues in assessing a reform initiative. Guidance, control, and manipulation of the environment are primary management functions. To be sure, managers at all levels of the system are concerned with creating an organizational setting that is supportive of the educational enterprise. But they are also engaged in maintaining stability and order in that environment. Often these concerns are not coincident.

Principals judge a reform initiative first in terms of its effect on the administrative business of the school. Building managers spend very little time on instructional matters; their central responsibility is crisis management. Most of their day is taken up with matters of bureaucratic control, responding to parents, disciplining unruly students, managing the flow of personnel and materials within the building, and the like (Blumberg and Greenfield, 1980). These bureaucratic and administrative functions necessarily mediate response to a reform proposal. For example, a principal in a mid-western elementary school discontinued his very successful Follow-Through program because he found the increased parent participation associated with the program to be unmanageable. Similarly, many of the reforms proposed for the secondary level that involved mini-courses or flexible scheduling quickly disappeared from the secondary landscape, not for pedagogical reasons but because they were administratively untenable. The California principals who elected not to apply for funding under the state's Early Childhood Education program because of the attendant paperwork burden provide another example of the displacement of educational goals by bureaucratic concerns (Berman et al., 1979).

A principal's evaluation of the effects of a reform initiative for the school and the consequent level and nature of his support for the policy are of major import. The strong, positive relationship between a

principal's direct involvement in instructional matters and school effectiveness is well documented (see, for example, Wellisch et al., 1978). Schools generally do better when the principal is knowledgeable about the curriculum, displays an active interest in classroom practice, and works with teachers to plan and carry out an effective instructional program. Similarly, the explicit and substantive support of a principal is crucial to the outcome of a reform effort (see the studies reviewed in Fullan, 1982, Ch. 8).

In the instance of a planned change initiative, the function of the principal's support extends well beyond instructional leadership (Berman and McLaughlin, 1978; Emrick and Peterson, 1978; Fullan, 1982). Principals have an important facilitative role to play, serving as broker for district resources, helping teachers understand and interpret program guidelines, working with staff to integrate new practices into ongoing activities, making sure the necessary time and space are available to participants, and fielding implementation problems on a daily basis.

Principals can also make an important substantive contribution to project outcomes. They can help teachers assess their progress and provide the feedback about performance that is central to teachers' motivation and willingness to carry out new practices (McLaughlin, 1984). Through this review and consultation with teachers, principals can breach the isolation of teachers to promote a high level of consistency in classroom practices and assist teachers in identifying effective instructional responses. A principal's active support and knowledge is also important in socializing new teachers and fostering the stability and continuation of a reform initiative over time. In short, an informed, active, and supportive principal can play a major role in implementing and sustaining a reform policy. Conversely, the absence of this explicit engagement cues teachers that serious effort is not expected and deprives them of important moral and material support.

At the central office level, political concerns dominate as reform proposals are weighed. Superintendents serve at the pleasure of the local board of education. The constituency concerns that elect a board and shape its priorities frame central aspects of a superintendent's duties. Constant communication and diplomacy—explaining, justifying, negotiating, mollifying, selling, bargaining—consume most of a superintendent's time and energy. The politics of a particular reform will therefore capture the attention of central office staff. Will a constituency be opposed to an initiative? Will district involvement be seen as representing an inequitable allocation of resources? Does the reform's focus raise ideological hackles among influential community or board members? Do the politics of the reform mesh with local political

taste? Reforms that fail a local political litmus test are unlikely to be adopted voluntarily. Where they are mandated, local response will be slow, uneven, and painful.

Once the political costs and benefits of a reform have been assessed, administrative concerns engage central office consideration. How much will it cost? What are the organizational consequences of implementation? What will be the effects on staff assignments? What institutional resources are required to support the project—e.g., time, technical assistance, space, materials?

These pragmatic political and administrative considerations filter district response to the educational or social merits of a reform proposal. The resulting district response influences a reform policy in multiple ways. Tacit or express district-level interest in a reform effort signals principals and teachers about the priority assigned reform objectives. The district resources applied to support implementation can make the difference between frustration and disengagement or confident acquisition of the skills, attitudes, and concepts necessary to carry out a reform policy. Active central office involvement serves a number of functions. Central district staff can support consistency in district response to a reform effort; target technical assistance, help in resolving scheduling, resource, or other of the problems that arise in the course of implementation; coordinate reform activities and on-going practice; and ensure that necessary resources are available to support a reform effort over time.

Whether or how district managers respond to a reform policy is a complex question. Administrative resolution of the local political and administrative issues associated with a state or federal reform proposal may make only incidental reference to substantive policy goals. And, because it is the perceived consequence of a policy rather than its educational objectives that dominate local administrators' response, local implementation inevitably transforms a policy's substantive objectives into political and administrative questions. As a result, externally formulated reform policies can stimulate perverse and unintended consequences and their effects on local instructional practice are necessarily indirect.

UNDERSTANDING VARIABILITY

Policy affects educational practice indirectly and imperfectly. Local response to reform initiatives depends on the multiple incentives, the multiple goals, and the norms that shape local practices as well as the fiscal, human, and material resources available to support local

implementation efforts. The variability that characterizes local response to educational reform policies presents both problems and opportunities for policymakers.

Variability can be a problem for many reasons. It can mean that reform goals have been met unevenly or not at all. Variability means that policy effects are not always predictable, that the level, nature, and quality of services provided students under a national reform effort can differ considerably and often unacceptably across states or districts or even within the same school system. Variability of this stripe can signal some degree of resistance—local noninterest in a reform proposal, the incompatibility of policy means or goals with local objectives or management style. Because effective change cannot be commanded, the policy problem in this instance becomes one of generating willingness on the part of practitioners to address reform objectives. Uneven implementation also can reflect the variable capacity of practitioners and inadequate implementation support. Or it can embody practitioner response to multiple, competing demands on the system or classroom and the consequent adaptation, selection, and often distortion that takes place just to get a job done.

Variability presents far more than a policy problem, however. It also represents an important opportunity for policymakers to learn about more effective ways to influence practice. Understanding variability in local practice helps policymakers to identify the factors that support teacher willingness to carry out a reform initiative and to understand the many ways in which particular policy goals can be addressed. Where variability represents adaptation of a reform initiative to the particulars of a classroom or site, it captures the invention, the environmental sensitivity, and the judgment that characterizes best practice. As such, it represents a net gain in the policy system's expertise and flexibility.

Policies that aim to reduce variability by reducing teacher discretion not only preclude learning from situational adaptation to policy goals, they also can impede effective teaching. Compliance drives out discretion. Best practice is achieved through activities undertaken at the margins of stable, enduring instructional patterns. It is "best" because it elaborates the elemental instructional patterns to develop the most effective response to specific students, classroom settings, and instructional goals. Ironically, then, policies that aim to reduce variability by limiting teacher discretion in making these marginal judgments also constrain effective practice.

Understanding the nature of practice and incentives at the local level underscores the problems that are inevitable when a formal and external policy aims to control local behavior (see Scott, 1984). Where

formality means rigidity of procedure and limitation of practitioner discretion, it restricts the professional judgment central to effective practice. Externalized controls only weakly affect the professionally grounded norms and incentives, or the internalized controls, that influence practitioner behavior. The power of internalized norms, the structure of practice, and the process of instruction mean that *pro forma* compliance has but incidental significance for classroom practice and so for policy goals. It is in the nature of teaching and the institutional arrangements supporting practice that regulatory mechanisms will be applied unevenly and sporadically and that they will be largely ineffective in controlling the behavior and decisions that matter most to the quality of classroom practice.

Whether based in teacher judgment about effective practice or in inadequate implementation support, the local variations associated with reform policies highlight the niches that policy and administration can address. Understanding variation aids and abets learning from experience. It provides opportunity for policymakers to capitalize on the conditions that support productive variation and to minimize or correct conditions associated with disappointing or inappropriate practice.

V. PROSPECTS FOR THE NEW REFORM AGENDA

Given what we know about the historical record of educational reform, about the effects of attempts at reform, and about the nature of educational practice, what then can we say about the prospects of the new reform agenda? Few things are certain about the new agenda, except that (1) it relies heavily on standard-setting and regulation as the major implements of reform, (2) most policymaking occurs at the state and local level, (3) the dominant theme of reform is quality, and (4) secondary schooling is the major target of reform.

Calls for reform have come from virtually every professional and political quarter. The most common diagnoses of what troubles American education are poor performance, mediocrity, loss of direction, and lack of commitment. The most oft-quoted statement is the pronouncement by the presidentially appointed Commission on Educational Excellence that "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people." (National Commission on Educational Excellence, 1983, p. 5.) This theme extends well beyond the Commission's report. The Twentieth Century Fund Task Force on Federal Education Policy (1983, p. 3) begins its report with "The nation's schools are in trouble. By almost every measure—the commitment and competency of teachers, student test scores, truancy and dropout rates, crimes of violence—the performance of our schools falls far short of expectations." The Carnegie Foundation for the Advancement of Teaching study of high schools observes an "alarming gap between school achievement and the task to be accomplished" as well as "a deep erosion of confidence, . . . coupled with disturbing evidence that at least some of the skepticism is justified." (Boyer, 1983, p. 6.)

In looking for causes, critics go not to society at large, but directly inside the school. What they find is dismal. The Carnegie study finds that "classes are at times inspired, occasionally dreadful, and most often routine." (Boyer, 1983, p. 16.) John Goodlad's (1984) study of elementary and secondary schools finds "chaos in the curriculum," (p. 140) and a classroom environment marked more by "emotional flatness" (p. 114) than by "exuberance, joy, laughter, abrasiveness, praise and corrective support of individual student performance," (p. 112) leading to an environment in which "boredom is a disease of epidemic proportions" (p. 242). A participant in another broad-scale study of

high schools observes that although "mutual commitment is the sine qua non of good education," the "one rudimentary fact of life in high schools is the lack of such commitment in many, many classrooms. There one finds flat, arid, wasted hours." (Cohen, 1984, p. 13.) The picture that emerges from these studies is of an institution characterized by a rigid and fragmented structure, diffuse purposes, and profound demoralization.

The curriculum, particularly of secondary schools, has grown increasingly diffuse, according to critics. Academic credit is granted for a smorgasboard of activities, many of which involve little serious learning. The typical high school transcript contains such enigmatic entries as general office, power tools, mixed glee club, creative communications, team sports, values, and guitar. As a small proportion of an otherwise demanding curriculum, these topics have a certain charm, but they typically occupy from one-third to one-half of a student's academic program (Boyer, 1983, pp. 81–83). Large and obvious gaps appear in the transcripts of students pursuing a variety of courses of study, the most common of which is exposure to a foreign language. In an effort to be responsive to differences among students schools have produced a multitude of offerings but have lost track of the simple truth that "what is taught in school determines what is learned." (Boyer, 1983, pp. 71–84.)

Within schools, organizational problems abound. "Many of the best teachers have been 'promoted' to better paying administrative positions, devaluing the status of the teacher." (Twentieth Century Fund, 1983, p. 9.) "Teachers are deeply troubled, not only about salaries, but also about their loss of status, the bureaucratic pressures, a negative image, the lack of recognition and rewards." (Boyer, 1983, p. 155.) The decline of the school-aged population, the aging of the teacher force, and the growth of job opportunities outside education for talented women have all conspired to create a work environment in which few new teachers enter, promotional opportunities are limited, tenure rewards longevity rather than competence, and talented young undergraduates are encouraged to seek careers outside education. Working conditions reinforce teachers' sense of low status—little preparation time, heavy class loads, few physical amenities, isolation, and, in some settings, threats of physical violence (Boyer, 1983, pp. 158–159). Schools and school systems are typically structured hierarchically, even though the work of teaching is intensely idiosyncratic. Administrators at the building and system-wide level become the enforcers, teachers the enforcees. This conflict is played out in rules, structures, and incentives that people committed to effective teaching find at best absurd, at worst pernicious. In most schools, time, the

most precious of commodities for the teacher, is limited to five minutes per student per week for students' written work and ten minutes for each fifty minute class. "Most jobs in the real world have a gap between what would be nice and what is possible. One adjusts. The tragedy for many high school teachers is that the gap is a chasm, not crossed by reasonable and judicious adjustments." (Sizer, 1984, pp. 20, 205–213.)

Proposed solutions converge on four major items: (1) clarifying goals and curriculum content, (2) improving the quality of teaching, (3) improving the organization of schools, and (4) clarifying standards of student performance. Although there is substantial disagreement on specific solutions in each of these areas, there is no shortage of proposals.

Proposals to clarify goals and curriculum content emphasize the primacy of academic content, the establishment of a clear "core" curriculum in reading, language, mathematics, science, history, and social studies, and the establishment of clear standards for instructional time devoted to important subjects. Proposals to improve the quality of teaching entail imposition of minimum performance standards for hiring and promotion, increased teacher salaries, reduced teaching loads, increased promotional opportunities within the teacher force, increased opportunities for in-service training, and recognition for exceptional performance. Proposals to improve the organization of schools include reducing the bureaucratic responsibilities of principals and training them to assume the role of "instructional leaders," higher standards for promotion to principalships, more room and more physical amenities within schools, and creation of simple, flexible structures. Proposals for clearer standards of student performance consist of mandatory examinations or "exhibitions" (Sizer, 1984, p. 215) for students to demonstrate mastery of core content, higher graduation standards, and higher entry standards for higher education.

Across this array of diagnoses and solutions runs a bias that distinguishes the new reform agenda from all others in the past 25 or so years: "the school as the unit of improvement." (Goodlad, 1984, p. 31.) The quality of education improves, the argument goes, as the quality of classroom instruction improves, the quality of classroom instruction improves as the schools function more effectively; and schools function more effectively as all features of the larger system concentrate on the prerequisites of effective school performance. The problems of the whole, in other words, are the problems of the smallest unit.

> Upgrading classroom life is best done on a school-by-school basis. Teachers assist each other. Principals help create the setting and secure additional help. The action and rewards for in-service education and school improvement shift from where they have been traditionally—with the superintendent's office and districtwide activities—to the principal's office and the school as the key unit. Research increasingly supports such a process. (Goodlad, 1984, p. 129.)

Indeed it does. If our analysis of previous reform efforts is correct, all roads lead to the classroom and the school.

Seen against the experience of previous reforms, however, the new agenda evokes a certain poignancy. As accurate as the diagnoses might be, as plausible as the solutions might be, as correct as the focus on schools might be, one has the feeling that the main appeal of the new agenda is that it has not yet failed. When the inevitable unraveling begins, who will absorb the blame? Will it be researchers, who framed the agenda? Will it be state legislators, who passed comprehensive reforms of teacher career ladders and certification, graduation standards, curriculum requirements, and state-wide testing? Will it be local school board members and administrators, who formulated districtwide school improvement plans, set new simplified core curriculum requirements, negotiated a master teacher program with the local teachers union, and set new and tighter standards for student promotion and graduation? The answer is probably no. The policy*makers* will not absorb the blame for the initial failures of the new reform agenda. The policy, after all, is grounded on good research, common sense, and public consensus. The reasons for its initial failure must lie with the schools, which, after all, would not need reforming if they were populated by competent people. The blame, in all probability, will fall on people who work in schools. Thus does a reform agenda based on the school as the unit of improvement become another device for manifesting hostility and indifference toward schools and the people who work in them.

How will the unraveling occur? Three examples will suffice: master teachers, curriculum reform, and student performance standards. The rationale for master teachers is that promotional possibilities for teachers are too limited. Career advancement typically leads out of the classroom into administration. The solution is to create a new job classification, called master teacher, with supervisory responsibilities but close contact with the classroom. This new job not only solves the problem of limited career advancement, it also provides a mechanism for improving the quality of "regular" classroom teachers. In principle, the idea makes sense.

Seen from within the school, however, it loses some of its charm. Take a typical collection of teachers, with varying degrees of experience and competence. Elevate one of them to higher status and financial reward, by some process that meets procedural standards of fairness and objectivity as well as carefully negotiated terms of the local union contract. Place that person in a school, or a collection of schools, with the charge to improve the performance of other teachers. The first problem that presents itself to a master teacher is how to act with one's former peers. Are there any models from one's own experience to draw upon? District curriculum consultant? In-service trainer from local university? Neither would seem entirely appropriate. The second problem is how to establish rapport and authority with one's peers. Should you try to do it by being useful and friendly, or by being cool, objective, and competent? Some unspecified combination would seem appropriate. The third problem is how to demonstrate results with one's supervisors. Number of consultations? Too much process, not enough output. Number of teachers successfully implementing program? More output-oriented but too restrictive. Increases in student test scores? Not likely. It doesn't take much elaboration to suggest that creating a role called master teacher sets off fantastically complex reverberations, both in the person being asked to perform the task and in the school where the person is asked to work. Some master teachers will emerge as models of the craft. Others will be total failures. (What do we do with the failures? Create a new category called master teacher supervisor?) The success of the reform will depend, to a large degree, on the competence of the people we select and on the variety of solutions that develop to the problems outlined above. Furthermore, the more demoralized and alienated the existing teacher force, the higher the stakes for the new master teacher, and the higher the probability of failure.

Consider secondary school curriculum reform. The rationale is that the typical high school curriculum has become a collection of electives and specialized versions of basic subjects with no central focus. The solution is that *every* student, regardless of academic track or aptitude, will master a core curriculum consisting of language, literature, mathematics, science, history, social studies, arts, vocational training, and community service (e.g., Boyer, 1983, pp. 94–117). To the extent that criticisms of the present secondary curriculum are correct (and they are correct to varying degrees in different places), reform will mean moving from a structure in which students find a variety of paths through high school to one in which everyone follows the same path for a substantial portion of his or her time in school.

The secondary curriculum did not become fragmented and unfocused by accident. It became that way as a result of earlier reforms, many of them written into state and local policy, that were explicitly designed to make a rigid curriculum more responsive to individual differences among students. Those individual differences will continue to exist. Some students will continue to enter high school with a fifth-grade reading level. Others will enter with advanced placement in math and science. Curriculum reform changes the symbols by which teachers are asked to interpret these differences. Under the old regime, individual differences were the rationale for curriculum flexibility; under the new regime, they are to be interpreted as challenges in adapting instruction to a diverse audience.

Curriculum reform presumably also changes the internal structure of high schools. Will it be possible to offer "vocational" English, "college prep" English, and "general" English under the new regime? Not likely. Most teachers will respond to the assertion that "English is English" with the professional judgment, honed by years of experience, that there is a difference between teaching English to a 16-year-old with the reading ability of an 11-year-old and teaching English to some for whom reading is a reflex. We can regale these teachers with stories about their exemplary peers who can keep students with widely divergent backgrounds spellbound through two weeks of *Coriolanus*. But what we're doing with such examples is demonstrating the variety of practical solutions to concrete problems of instruction, not suggesting solutions that will work for the vocational English teacher who is about to start teaching in the core. If the problems of teaching English under the new reform agenda seem difficult, they pale beside the problems of teaching foreign language, mathematics, and science.

Student performance standards present similar problems. The rationale is that, with more attention to core knowledge, we should also make expectations for student performance clearer. Whether by traditional examination or by some other method, students should be required to demonstrate proficiency in basic courses in order to advance to the next level of schooling or to leave school with a diploma. Setting standards, as a matter of policy, is not terribly difficult, especially when there is broad public support for the notion that schools need to be more rigorous and clear in their expectations of students. One set of problems arises in the setting of standards. We begin from a system in which expectations have grown diffuse, largely in response to the dictates of an earlier reform agenda to make schools more responsive to individual differences in aptitude and taste. We then impose standards on that system. Do we initially set standards at a level where we think they can be achieved and gradually adjust them to the point where they ought to be? Or do we set them initially where

they ought to be and accept that large numbers will not achieve them? In the former case, we are encouraging minimum performance; in the latter, we are promoting failure.

Another set of problems with standards arises in their implementation, especially in their effects on the organization and practice of schooling. John Lawson, Massachusetts Commissioner of Education, has said,

> If a kid can't clear four feet, it doesn't do much good to raise the bar to four feet, six inches. It does help to give more and better coaching, more and better training. The heart of educational reform is in what goes on in the classroom, not in how performance is measured. Higher standards are the result of reform, not the cause. (Quoted by Eleanor Duckworth, *Harvard Educational Review*, 1984, p. 15.)

If the point of introducing student performance standards is to raise the quality of teaching and the level of learning in schools, then doing something about the conditions that create low quality, lack of commitment, and demoralization is a condition for introducing the standards by which that commitment will be evaluated. But if standards are to be the result of changes in schooling, rather than the cause of them, the standards have to be set by the people to whom they apply, not by external actors trying to influence the way schools work. Setting standards from the outside is a good way to deliver signals that the system is not performing according to expectations. It is not a particularly good way to introduce changes into a system that is in disarray largely as a result of earlier attempts to reform it.

With these examples, one quickly gets the picture that making the school the unit of improvement doesn't solve the problem of reform, it simply redefines the target. There is great danger that, having defined the target so narrowly, every policymaker in a position to influence schools will attempt to do so. In the previous reform agenda, the target was inequity in society at large—a vast enough arena to accommodate legions of ambitious reformers. By defining the target of reform as the school, we have substantially narrowed the arena of action, but we've left the number of policymakers constant. We've also left the incentives to make policy for the schools constant. Elected officials and high-level administrators can reap the rewards of reform by initiating; practitioners can reap the rewards, if at all, only by implementing. We have created, in other words, a situation in which every policymaker's preference for curriculum content, teacher competency, and student performance standards have to be accommodated within the confines of every school. It does not take much imagination to see how quickly we can move from the assumption that the school is the

unit of improvement to the result that school organization simply reflects another set of external demands, rather than a structure for the discovery of effective educational practice. Instead of reforming and renewing schools from the inside out, school people will be given the task of translating competing and often unreasonable demands into practical solutions that may or may not be consistent with effective practice. In the most pessimistic scenario, everybody piles on the school, and the school responds rationally by accommodating everybody's preferences. The result is a school even more demoralized and riven with uncertainty, and even less effective. This scenario brings to mind an African proverb, "When the elephants fight, only the grass suffers."

Avoiding this result requires an explicit recognition of the limits of policy as an implement of reform. Policies, as we've seen, are useful, but blunt, instruments. Under the best of circumstances, they can influence the allocation of resources, the structure of schooling, and the content of practice; but those changes take time and often have unexpected effects. Under the worst circumstances, they communicate hostility or indifference to the very people whose commitment is required to make them work, they fragment organizations in ways that make them more responsive but less effective, and they initiate demands at a faster rate than the system can implement them. If the new reform agenda is to avoid the mistakes of the old, it must explicitly deal with four major problems underlying the use of policy as an implement of reform: the gap between policy and practice, variability, the function of rules, and creating effective organizations.

CLOSING THE GAP BETWEEN POLICY AND PRACTICE

Policymakers initiate, administrators and practitioners implement. In the process of reform, the mode of transition from one structure to another is nearly everything. Policymakers tend to initiate by imagining what the best possible structure would be and then mandating resources, organization, and rules consistent with it. They seldom think about the protracted process by which these changes work their way into the daily lives of administrators and practitioners. If earlier reforms have anything to tell us, it is that time is the essential ingredient in any reform and that the function of time is to provide opportunities to accommodate, adjust, and adapt administration and practice to policy. Policymakers can acknowledge this fact more explicitly than they have in the past by charging practitioners with the

development of solutions, rather than mandating imaginary systems that take long periods of time to adjust to reality. Eleanor Duckworth has observed that current reform proposals are notable for their failure to reflect the views of teachers. "Education *is* what teachers do. . . . If policy is to affect students' experience in schools, it must be through what teachers do, how they do it, and what it means to them. . . . The assumption seems to be that teachers are a kind of civil servant, to be 'trained' by those who know better, to carry out the job as they are directed to do, to be assessed managerially, to be understood through third-party studies." (*Harvard Educational Review*, 1984, p. 17.) Reversing this assumption means using policy less to mandate resource allocation, structures, and rules, and more to initiate development. It means commissioning people who work in real schools to fashion workable solutions to real problems, and allowing those solutions the opportunity to fail and the time to succeed.

ACCOMMODATING VARIABILITY

A corollary problem is learning to accommodate variability on all dimensions of the current reform agenda. Policy deals at a high level of abstraction, whether it is school district policy, state policy, or federal policy. This attribute of policy can be an advantage when it accommodates diversity and variability in practical solutions; it is a disadvantage when it limits the development of solutions and imposes rigid constraints on variations in practice. One can imagine from the discussion above that six different high schools, charged with the task of developing a core curriculum and given the resources to do it, would generate six different models.

Over time, two or three of those models would emerge as a rational accommodation of uniform expectations to diverse student attributes. Those models would have more credibility with the teachers of vocational English than all the rules, standards, and procedures that a central district office or a state legislature could develop. But allowing these models to develop means building policies to accommodate variability, rather than discourage and penalize it. Variability is a fact, whether it occurs in response to uniform policies or in response to developmental efforts to encourage it. The question is not whether variability can be tolerated, but how to use it in developing solutions to the problems of the new reform agenda.

LEARNING THE FUNCTION OF RULES

Rules are a key element of any system of interdependent relations—intergovernmental, bureaucratic, or professional. One effect of using policy as an implement of reform, however, is to elevate the authority of rules above the authority of competence, practical judgment, and expertise. Rules often override judgment for good reason; judgment often produces results that are inconsistent with the larger interests of society. But when that happens consistently, the message communicated to practitioners is that judgment is useless. Then authority recedes and everyone looks to rules for the solution to every practical problem. Schools cease to produce results and produce only paper.

Breaking the substitution of rules for judgment means acknowledging that rules only set standards of fairness and don't prescribe solutions to practical problems. It means allowing teachers explicitly to vary what they teach within broadly defined performance expectations. It means allowing principals to carry out curriculum reforms in ways that deviate substantially from the research, from district guidelines, and from the personal tastes of district curriculum supervisors, so long as the result is movement in the direction of agreed-upon content. In other words, rules should set expectations, not dictate practice.

LEARNING TO CREATE EFFECTIVE ORGANIZATIONS

If schools are dismal places to work and learn, they are so because we have made them that way. Unmaking them requires more than following the dictates of researchers, administrators, and policymakers. It involves invention, commitment, and failure. To the degree that policy encourages and accommodates these things, policymakers will get credit for success. To the degree that policy penalizes them, highly committed practitioners will find other places to work, those with less commitment will accommodate to a regime of failure.

Research and experience suggest how to create effective school organizations, but that knowledge is useless until it is translated into the experience of principals, teachers, and district administrators. That translation requires development, and development requires time, accommodation, and tolerance for error.

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